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Bedside Teaching of Medicine*

REGINALD FITZ
Associate Professor of Medicine, Harvard University Medical School
Boston, Massachusetts

As time goes on, I realize more and more what people mean when they say that good bedside teaching of medicine is an art and a difficult one to describe. For, as in any other form of art, its technique is highly individual and unadapted to analysis. However, as my years since graduation begin to mount up to respectable figures, I find that certain notions regarding bedside teaching are firmly rooted in my mind.

Good bedside teaching of medicine, primarily, must include a great deal of drill and be conducted under the supervision of an expert drill master. For it is by drill that medical apprentices emerge from amateur to professional rating, and at last are implanted with the fundamentals of successful doctoring, namely, with knowledge of how to establish diagnosis and treatment in the great majority of cases, systematically, accurately and expeditiously.

One of the most progressive steps accomplished in medical education since Osler's day is the general acceptance of his viewpoint that it is not in the lecture room but in the outpatient department and on the wards that are found the important training grounds for doctors, and that here, students should be drilled over and over in the technique of bedside medicine by high-ranking, efficient instructors. To speak dogmatically, good habits for work at the bedside are mainly acquired by practice; the best clinician is he who is trained reflexly to overlook the least and to make the fewest mistakes.

Obviously, bedside teaching in medicine to be good must include something more than drill: it must be interesting. What constitutes interesting medical teaching is also a difficult matter to determine. Harvard men of my day are apt to think back to their Jackson professor of clinical medicine and their Hersey professor of theory and practice as two contrasting types of extremely interesting teachers. The one, in his clinics, presented

*From the Medical Clinic of the Peter Bent Brigham Hospital, Boston.

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patients and commented chiefly on the homely ills with which every doctor should be familiar: ills like pneumonia, typhoid or cardiorenal disease, advising or demonstrating from his own experience how to make sick people as comfortable and happy as possible, urging his students to remember in days to come the grain of truth in what Oliver Wendell Holmes once remarked, that it makes little difference as to the name of the stray dog that bites you provided you are lucky enough to fall into the hands of a doctor who knows how to make the wound heal quickly. The other, in his clinics, also presented cases. But he made the students do the work, form their own opinions, and defend their diagnoses and therapy before their classmates and his criticism.

Both these methods of bedside teaching, undoubtedly, were successful in that they provoked learning in an interesting manner. Since undergraduate days I have observed many clinical teachers and have seen many teaching methods: it is impossible to designate this teacher or that method as being the best. Any system of bedside teaching in medicine is good if it is conducted by alert instructors who enjoy teaching and clinical medicine, who can teach of people as well as of disease, who know how to deal with the foibles of humanity as capably as with illness, and, most important, who are so gifted that they can make memorable and worth while to students anything they may say.

Thirdly, good bedside teaching must be so arranged that not only is it interesting and affording good drill in the technique of medicine, but also so that it is inspiring to the select few in whose minds the seed of ambition once planted will later grow into something worth while.

A good teaching clinic must carry on original work in order to avoid stagnation. As investigator, the inspiring clinical teacher exerts his influence almost imperceptibly and by example rather than consciously: the students see him in his workshop, surrounded by his books and instruments, and are sensitive to him even though they fail to understand his problems or his work. In later years, however, they remember the little things they gleaned from watching him: how to use books in the approach to a problem, how to devise or perfect methods, patience, a respect for good writing and nicety of expression, a dissatisfaction with imperfection and a proper attitude of self criticism.

A group of interesting and enthusiastic instructors working under an inspiring leader make a fine team for good bedside teaching. The manner in which such a team functions, however, will differ widely as the individual peculiarities of the different members become evident. Certain men can conduct ward rounds to great advantage with a small group of students, while others entirely lack the ability to make such instruction worth

while and do their best teaching in an amphitheater clinic or lecture hall; some teachers appear to get the most from their students by prescribed reading and quizzes, while others succeed in developing successfully a highly specialized form of exercise, as did Dr. Richard Cabot with his clinical-pathological conferences. That there is much diversity in useful methods of bedside teaching is altogether proper for no two people can be expected to teach effectively in the same way. The shrewd department head avails himself of all teaching methods familiar to his staff, encouraging each of his assistants to develop that particular brand which is best suited to his abilities.

Fundamentally, one's conception of the essentials of good bedside teaching must depend almost entirely on how one feels regarding the future of medicine. To me, medicine now appears to be more complicated than it did when I graduated, but by no means as complicated as many people seem to think it is—and much more interesting. There is still great demand and almost unlimited opportunity in every community for well-trained all-round physicians. This demand probably will continue. Teachers of medicine should bear this fact in mind when deciding the viewpoint from which to carry on their clinical instruction. The pitfalls to beware of are the pitfalls of over-emphasis on specialization and laboratory work; the goal to aim for by example and precept is to so guide oncoming members of the profession that they have at heart to become plain doctors, to live in constant contact with all manner of people, and to practice well and honestly with a wise and tolerant philosophy.

Bedside Teaching of Medicine*

M. C. PINCOFFS
Department of Medicine, University of Maryland
Baltimore

The teaching of medicine at the bedside in the Medical School of the University of Maryland is done in the student's fourth year. In the third year, the teaching in the outpatient department has prepared him to take histories and to make physical examinations. In the fourth year he comes on the wards to serve as a clinical clerk. He is assigned to a small group which will be responsible for the routine examinations and progress notes on about twenty patients, usually on one ward.

The attending physician in charge of the patients on this ward is also in charge of the student group on the ward. It falls to his lot to do a very important part of the bedside teaching. He it is who gives the students individual instruction, checks the accuracy and completeness of their histories, verifies with them their physical findings and assists them in arriving at a diagnosis and a plan for therapy. These young instructors are graduates of from five to ten years standing. They spend the greater part of each morning on the ward. They have the great advantage of knowing both the students and the patients well; and on their competence, I believe, depends fundamentally the thoroughness of the training of the clinical clerks.

Almost equally important, of course, as bedside teaching are the ward rounds given three times a week by the chief physician or by other teachers of senior rank. Two student groups totalling from 12 to 15 men attend these rounds which last for one hour. Two general forms of teaching are employed. The hour may be spent in the consideration of one patient or true ward rounds may be made and all the patients on the ward visited.

A physician who is not acquainted with the patients on the ward does better if he confines himself to a single case. He is, then, in the rôle of a consultant called in for the benefit of this patient. The history is submitted to him by the students and he may wish to supplement it by direct questioning of the patient. He examines the patient, demonstrating his findings as he proceeds. The laboratory reports are read, and he may move on with the group to the laboratory to see an interesting specimen. The roentgenograms will be available in the view-box at the end of the ward. Then, will come his analysis of the data, discussion of the diagnosis, recommendations for further study and for a program of therapy.

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Such an hour can be made interesting and valuable to students through any number of modifications of this outline. There are, however, certain essential principles of good bedside teaching which cannot be ignored with impunity. In the first place, it must be remembered that the teaching is done at the bedside only because of the need of demonstration, and, therefore, the teacher must demonstrate rather than lecture. Lecturing at the bedside is out of place and unnecessarily hard on the student's feet. Instead, the student should have a chance to see, to feel, to hear and to smell the manifestations of disease. In the second place, the teacher should express some definite conclusions as to the diagnosis and the therapy. Only in this way can the atmosphere of academic futility be dispelled and the student be made to feel that he is listening to a physician trying to aid in the diagnosis and treatment of a patient and not merely attending a required class exercise. He will learn, too, the valuable lesson that in cases in which an absolute diagnosis cannot be made it is often still necessary to decide on positive therapeutic measures on the basis of the probabilities.

The physician who is acquainted with all the patients on the ward may profitably make true ward rounds, i.e., take the students from bed to bed to point out the progress made by the various patients and to demonstrate, briefly, the more interesting phenomena which they exhibit. It is a splendid opportunity to teach the fundamental lesson that disease is seldom static, and that to perceive the changes that are taking place one must not be content to stand at the foot of the bed and ask questions but must also throw back the covers and examine the body. There are often findings which give a rough measure of the progress made, the recession of edema, the appearance of cyanosis, the increased size of a mass, the fading out of jaundice, the lessened tremor, etc.

The visits of consultants, neurologists, psychiatrists, ophthalmologists, surgeons, etc., to the medical wards are also of great teaching value to the students. They are expected to be on hand whenever possible and are free to ask questions.

So far I have stressed some of the formal methods which may be employed to advantage in bedside teaching but there are other and subtler aspects to the question which are of equal or greater importance.

The teacher must remember that he is dealing with young men whose susceptibilities are fortunately not yet blunted. He may, by his example, influence them for good or evil. He should take care that in his bedside teaching he always bears in mind the listening patient. It takes skill as well as sympathy to be able to discuss freely the patient's condition, his history, his background and his future, and yet leave that patient happier

and more satisfied at the end of the hour. It can be done, however, and prove a lesson of lasting value.

When I look back to my own student days I feel that of what I learned at the bedside from my teachers the greater part was not due to any particular method they pursued, for each had his individual way of teaching. I remember some of the facts they taught me, but more the example they gave me. A few of the greatest teachers imparted more than facts, more than a method of reasoning and more even than the example of their own kindliness and wisdom. They touched their students with the fire of their own devotion to medicine.

DISCUSSION

On papers of Drs. Fitz and Pincoffs.

DR. C. H. NEILSON (St. Louis University): It is rather interesting this morning to see this Association of deans come down to earth.

Some years ago I was a student under Rose Bradford in England. We were discussing English doctors and American doctors. He said, "We make better doctors over here; you make better research workers," and there was some justice in the statement.

The other day I went down to Rochester and saw that beautiful clinic building and their wonderful work. In the evening, I heard the chimes on top of the clinic building. I thought they made a mistake in the choice of the music. It should have been "The End of a Perfect Day." I came away from Rochester with a feeling that perhaps I was not doing my full duty as a medical educator. I would take it that after four years of work in the clinic at Rochester men were fitted to practice medicine, and I thought of the many physicians who go out every year from their internship and wonder if they are fitted to practice medicine.

We often think that Bostonese live in a rarefield atmosphere of learning, way up in the air, in the stratosphere, so to speak. We have had two common sense papers here this morning from Boston, one from Miss Cannon, and one from Dr. Fitz on bedside teaching. These papers come right to the point and state that we are teaching doctors to become general practitioners. That is a thing we sometimes forget. In these days of science and super-medical schools and super-routines, we forget we are teaching practitioners.

I think that Dr. Fitz, who spoke on bedside teaching this morning, hit the keynote when he said we should choose teachers who can teach, men who are enthusiastic, men who do not get sluggish and pessimistic as they get older but remain optimistic.

Dr. Fitz harked back to his teachers. When a man begins to reminisce it is a sign he is growing old. I looked at Dr. Fitz' hair and he isn't very gray. I hark back to my teachers, Billings, Sippy and Herrick in the large amphitheater clinic. I still maintain that the old, large amphitheater clinic had a place in clinical teaching, so-called type teaching by the master teacher, not dividing them into little groups and turning them loose under an intern or resident. I think a

lot of the teaching today is done by men who are down the scale and not up the scale. We need bedside teaching of medicine by men of the caliber of Dr. Fitz and Dr. Pincoffs.

Years ago I went to Germany. I wanted to hear Nernst, the great physical chemist. I had a chemical training. I thought I would go over and hear Nernst on some obstruse problem of physical chemistry and I found him teaching beginning chemistry to beginning medical and chemical students. It does seem to me the master teachers should come in contact with raw minds earlier than we do at present.

Dr. A. W. Stearns (Tufts College) Boston: The discussion which we had half an hour ago called attention to the fact that a good mathematician in high school was likely to be a good mathematician in college and, in turn, would tend to get good marks in medical school. In other words, the screen which we have set up to sift applicants for medical school passes mathematicians in preference to all others. This tends to exclude the type of men for whom Dr. Fitz is looking.

Mathematical ability does not indicate social mindedness and, in fact, mathematical ability correlates very poorly with general intelligence while a great many other aptitudes such as use of language, for instance, correlate very highly.

A few years ago in Massachusetts we had a campaign to swat flies. In 1915 while I was in Arkansas there was an attempt to get rid of the excess of male chickens and there was a campaign to swat the rooster. It may be necessary, if we are to get the ideal type of medical students looking toward a well rounded medical profession, to start a campaign to swat the mathematician.

Dr. G. Canby Robinson (Cornell University): There is one element in bedside teaching that was not brought out that I believe should be mentioned. I have been very much interested in Dr. Fitz' and Dr. Pincoffs' papers, and I agree with everything they said.

I think we should use bedside teaching and the assignment of the student to the wards of our hospitals for the development of a sense of responsibility. If we can make students actually responsible for the tasks that count and make them part of the organization of the hospital, we develop in them a sense of responsibility which it seems to me is one of the values of bedside teaching.

Dr. E. S. Ryerson (University of Toronto): I do not know when this body has heard an address in which we have had a better demonstration of a man who practices what he preaches. I think we have had one of the most interesting and inspiring addresses, and in giving it he carried out the principle of drill by repeating certain features of it sufficiently frequently that I think they went home to all of us.

This aspect of drill is one which, to my mind, is too frequently neglected in medical teaching. There is the attitude in all of us to feel that somebody else is teaching them anatomy, somebody else has taught them physiology, somebody else has given them a clinic on this particular condition of the heart, or they have had a clinic on this particular fracture, and we are too prone to feel that repetition of a clinic or repetition of a particular topis is apt to be dull to the student who has already had that before, and that there is so much to cover that therefore we cannot repeat it or give him any drill in that particular aspect of the condition.

To my mind, that has resulted in the fact that the attempt is rather made to teach the subject of medicine or surgery or obstetrics rather than to teach

patients. If the emphasis is put on the fact that this is a human being, an individual who is sick, whether that brings in anatomy, physiology, medicine, obstetrics, the social side, or what not, that should be taught to the students and the emphasis put on the patient rather than on the particular subject.

DR. L. J. MOORMAN (University of Oklahoma): To hear Dr. Fitz and Dr. Pincoffs is an inspiration.

Being a dean by means of coercion and not by nature or training or education, I beg to differ with the gentleman who spoke a moment ago. I think deans are constantly held down to earth, and it is good to know that they may get up to the bedside.

I recall that Robert Louis Stevenson shortly before his death, contemplating his lifelong, you might say, struggle with disease, said, "I was made for a contest, but my battle field is the dingy, inglorious one of the bed and the physical body."

The doctor's battle field is the bedside, and he has two main objectives: One is to discover and capture the patient; the other is to discover, diagnose and cure the disease, if possible.

It is encouraging to find that a man like Robert Louis Stevenson, never being cured, could pay such a fine tribute to his physicians, as you all know he did. It was not because he was cured of his disease, but because he had doctors who considered the human organism as a composite whole and made the patient love the doctor.

DR. LOUIS B. WILSON (University of Minnesota): Pardon one who is not a clinician, and has not been for a great many years, for saying just a word in this discussion. Some years ago, I made a study of the men who had inspired young men who had graduated three to five years before. Only a very small number of bedside teachers were mentioned. Our experience with the few examples of graduates we get from a great many schools would lead me to believe there are relatively few great bedside teachers in the schools of America today. I hoped to bring out something from these men who have spoken and who we know are great bedside teachers. I wanted them to tell us, if possible, some of the things which made them great bedside teachers. They have told us some things, and yet I have a sort of suspicion that in back of all that they feel there is something which they have not been able to express. I am reminded of two great teachers of surgery, Christian Fenger and J. B. Murphy. There could not have been two men more distinctly different. They taught from entirely different viewpoints. Fenger was slow, careful, cautious, constantly calling on his great wealth of knowledge of pathology, anatomy and physiology. Murphy was the instantaneous, intuitional diagnostician, the brilliant operator. They were both great teachers. There were certain factors in those men which they themselves did not realize which made them equally great, though vastly different in their types of teaching.

A good deal has been said of what Dr. Fitz mentioned concerning drill. I strongly suspect there are different kinds of drill in medicine, just as there are different kinds of drill in the army. This "Squads right" stuff does not get the soldier very much beyond "No Man's Land." The drill in the use of weapons of offense is what carries him over into the enemy's country. I suspect there are forms of drill in bedside teaching which are concentrated upon the mere routine of doing everything that are about as useless as "Squads right," but there are other forms of drill which bring in constantly, as I believe great teachers always

do, that correlation of the significance of the facts of basic medical science as applied to diagnoses that are really the drill in the use of weapons of offense.

Dr. B. C. H. Harvey (University of Chicago): The papers and discussions this morning seem to illustrate the relation of medicine to one or two fundamental principles of biological science so beautifully that I do not like to have the occasion pass without mentioning them.

Medicine is a biological science, and so fundamental biological principles necessarily run through and appear in all its work. Two of these great principles have been beautifully developed this forenoon.

First, a living organism is an integrated group of biological processes that are working in reaction with environment, and the organism can not be detached from the environment. The working of the group of biological processes is necessarily an interplay with the environment. Some of the papers and some of the discussions on medical subjects illustrated beautifully the necessity of considering in medicine, as well as in all other phases of biologic study, the environment around the disabled organism. Much of our life is social: its environment is other people. That is the biologic foundation of sociology and social service.

The other great biological fact which has been illustrated this morning relates to the narrower field of the individual organism. Within the individual organism the integrative action of the nervous system is what makes out of that group of biological processes one organism. In the human arrival as in all others the upper end of the nervous system influences and dominates the working of the whole machine. That is beautifully illustrated by the repeated recognition of the fact that whatever is the matter with the patient, or wherever his particular disease may be, it is impossible to get away from the well recognized medical necessity of studying the patient above the eyebrows.

Dr. Russell M. Wilder (Rochester, Minn.): Dr. Wilson's closing remark was motivated by our experience at the Mayo Foundation. This indicates a better correlation between grades received in the basic sciences and subsequent performance as clinicians than between the grades received in the clinical courses and performance. Personally, I am not sure that I am willing to lay as much stress on the fact as Dr. Wilson does. I suspect that the grading in the clinical courses of the medical school are likely to be less rigid than those in the preclinical courses. The practicing physician, who is usually the instructor of the clinical course, has a broader sociological interest and consequently may possess a little more of the humanity and tenderness of heart we have been speaking of than the preclinical teacher and this may account for the difference.

On the other hand, I think Dr. Wilson is absolutely right when he insists on the fact that we must include in our bedside teaching inspiration, a great deal of inspiration indeed, in the fundamental or biological significance of the clinical problems that we are studying.

There is a good deal of criticism of young medical men on the score of too little training in the art of medicine and in physical diagnosis and too great dependence on the laboratory. I question whether this criticism is justified. I believe that those of us who have grown up in this era of scientific medicine are, on the average, quite up to our fathers in the art of medicine. We ought to be better clinicians because our mistakes are more frequently called to our attention. We have these important laboratory methods to check our diagnoses and our con-

clusions at each step, whereas a generation ago the pathological examination of the patient after death was about the only way the doctor had of finding out whether he was right or wrong. Today, we go to the laboratory in the same spirit that he formerly went to the autopsy room. If the student is impressed with this in bedside teaching we shall avoid all danger of their depending too heavily on the laboratory. As I mentioned Monday, it is our practice at Rochester to insist that the student draw the fullest possible conclusions in the examination in the clinic before turning to the laboratory. He goes to the laboratory as he goes to the autopsy room, for confirmation or disapproval of the conclusions reached at the bedside.

DR. LOUIS D. MOORHEAD (Loyola University): I do not believe any more important subject has been presented before this meeting. It is of such a practical nature that you can take it home and apply it to your students in the teaching of medicine.

In the discussion this morning one thing has impressed me, and that is in teaching clinical medicine we really put it under three heads. First, the inspiration derived from the large clinic in which the student has the direction of a great teacher. He learns the methods that can be used in clinical medicine, and he sees the results derived from the experience of a man who has been teaching for years. In the small ward walk he goes to the bedside and has these principles explained to him and applied, and then sees the results that follow. Then he goes into the clerkship where he himself applies the principles he has learned in the two preceding places and tries to watch the results.

One of the difficulties, it seems to me, that follows in the third form is this: The teacher in the first and second type, as Dr. Wilder has indicated, is a man who has had clinical experience as well as knowledge and experience in the laboratory forms. But when we get into the supervision of the actual clerkship work on the part of the student, is not it too frequently the case that the instructor is a man lacking entirely or very much in clinical experience, and is rather a man who has experience in the laboratory principles and in the laboratory phase of the work only?

I believe if we were to more evenly distribute our instructors, such as Dr. Neilson has indicated, and were able to get men of all types in contact with the students in the three different forms of teaching, our results would be far better.

Social Case Teaching of Medical Students*

IDA M. CANNON
Chief of Social Service, Massachusetts General Hospital
Boston, Massachusetts

The term social case teaching, as used here in its application to medicine, means the use of the patient in clinical teaching with special focus on the social, environmental, psychological features of the case and the consideration of the relationship of these to the medical condition, diagnosis, prognosis and treatment of the patient.

Social case teaching is not new to some of the branches of clinical teaching in the Harvard Medical School. In 1913, Dean Edsall, then professor of medicine and chief of medical service at the Massachusetts General Hospital, asked the cooperation of the social service department in interpreting the social aspects of medicine to fourth year medical students. We, who were associated with Dr. Edsall at that time, trace our interest in the subject to Dr. Charles P. Emerson who, as dean of the Indiana University School of Medicine, had earlier developed the medical-social clinic. Dr. Emerson, in turn, tells us that it was Dr. William Osler who inspired him at the Johns Hopkins Hospital to try to awaken in his students an understanding of the significance of the personal problems of the people in the poorer districts of Baltimore from which the hospital patients came. We can trace, then, a direct line of influence from the inspiring clinical teaching of Osler, on through the years, to a movement that now seems to be taking more definite form. Probably many similar lines of influence could be traced by others who are interested in the relationship of the scientific and social aspects of medicine. Certainly, the relationship is being forced on us from many directions.

I am offering this report as the chairman of a national committee of medical social workers who have participated in social case teaching of medical students. It will deal, especially, with the cooperation of clinicians and medical social workers in clinical teaching. We hope that our experience, thus summarized, may lead to a more effective use of social case teaching in a form that will contribute to the training of practitioners of medicine.

No one who has been associated with organized medicine, as it has been developing in the past two decades, can fail to be impressed with the complexity of the problems of medical education. The problem, as we see it, is to find opportunity in the inelastic time limits of the curriculum

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of the medical school, not only to present all the rich gifts of science to the study of disease, but also to teach the fine arts of medical practice. Medical literature presents many statements of the ideals of medicine that recognize the art of the practitioner of medicine. The difficulty has been in maintaining the practice of the art within organized medicine. To one who has long been in a position to observe the situation at close range, from the point of view of an associated profession, it seems as though medicine is, for the time, more or less in the grip of science, while struggling, at the same time, to maintain its great heritage as the most humane of professions. The administrators of hospitals, especially teaching hospitals, share this problem with you. How can individual consideration be given to the patient, his personality be taken into account, his problems that arise out of or complicate his illness—how can all these be understood and treated properly?

I do not know the origin of the term "clinical picture," but I like to think that it came from one of those great artists in medicine, who, like Osler, combined in his broad concept of medicine both its science and its art. But even since Osler's time the complexity of the science of medicine —one might say the sciences in medicine—has increased greatly. The published proceedings of your Association give ample evidence of this growing complexity. In the face of all the complexity of the subject and the overcrowded curriculum, one could not presume to suggest any addition to the program. But we are bold enough to maintain that there may well be offered in the program of clinical teaching a means of illuminating the clinical picture. In the interest of the art as well as the science of medicine, the search for the truth, that picture should not be too narrow nor too shallow to represent the substance of the man who, at the moment, is the host of the disease. The intent focus on the physical pathology should not blur the social background or the play of lights and shadows that emanate from the psychologic state of the patient.

We come to you as a group that was originally drawn into a cooperative relation with clinicians by a great physician, who, in the interest of better service to his patients, asked us to face with him the problems, medical and social, which baffle the patient as well as the doctor. Dr. Richard C. Cabot expressed his need for this service thus: "the overburdened outpatient physician had no time to visit the patient's home, to look into his economic situation, to enter into his state of mind, to comprehend or to influence that many sided psychic, domestic and industrial environment which is often a large part of what ails the patient, and is, moreover, a necessary avenue to his cure."[1]

1. Cabot, R. C.: "Hospital and Dispensary Social Work," read before the International Conference of Social Work, Paris, France, July, 1928.

The case method, as such, is so thoroughly incorporated into clinical teaching in our medical schools, that no arguments for its use need now be presented. We recognize social case teaching as an extension or a modification of your own well accepted method. I wish, now, to sketch briefly the history of social case teaching as it has been carried on in various medical centers by clinicians and medical social workers. A fuller report is being prepared, based on more extensive excerpts from published reports and correspondence over a number of years. Briefly, the story is this.

In 1902, Dr. Charles P. Emerson, then at the Johns Hopkins Medical School, aroused an interest in his students to get first hand knowledge of the way in which people lived and worked in the poor districts of Baltimore from which most of the patients came. Under his leadership, a student board was organized in a district of the Baltimore Charity Organization Society. These students enlisted as volunteer visitors under the direction of the district secretary. Dr. Emerson says that no attempt was made to assign to them patients from the hospital, but through their personal contact with families, "the student learned how the poor man lives, works, thinks; what his problems are; what burdens he must bear, They learned the intimate relationship between the ills of the physical body and the home environment. They learned how easy it is to give very good advice which will add burdens that cannot be borne."[2]

Later, when Dr. Emerson became dean of the School of Medicine of Indiana University, he developed a more formal method of social case teaching and incorporated it into the school program. In cooperation with Edna G. Henry, director of the social service department, students were assigned to visit patients in their homes and to bring back reports of the social conditions, for discussion of their significance in medical treatment. Medical-social clinics were held weekly at which Dr. Emerson presented the case in its clinical aspects, the student reported his social findings and a discussion of the social and medical relations followed. I recall vividly attending such a clinic in 1912, when a student reported on his investigation of the case of a young girl with chlorosis who was working in a laundry where she stood all day on a wet floor, feeding wet clothes into a mangle. She took a meagre cold lunch to the laundry, helped with the housework after hours at home, and slept with her old grandmother who had a prejudice against "night air." The limitations of "Rx. Blaud's Pills" were obvious.

When, in 1912, Dr. Edsall came to the Massachusetts General Hospital, it was soon evident that his clinical teaching would take account of

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2. Emerson, C. P.: "The Social Service Department of a General Hospital." National Hospital Record, March 15, 1909, pp. 5-7.

social complications. A medical social study of lead poisoning among patients in the wards and among outpatients demonstrated the need of exact data concerning their occupations and living conditions. The students were awakened to the importance of occupation as a possible etiologic factor in disease. In 1913, the Social Service Department was asked to assist in arranging a series of lectures on the social aspects of tuberculosis, heart disease, syphilis, alcoholism, feeblemindedness and occupational diseases. These lectures were received with moderate interest by the students. The lectures soon gave way to case methods of teaching which covered the same subjects as the lectures, but by way of the specific problems of individual patients. These patients were not necessarily known to the students, but frequently the patient appeared in person while the medical data was presented briefly.[3] The tuberculous man with a family to support, the woman with heart disease and heavy domestic responsibilities, the unmarried pregnant girl, the young man crippled by an industrial accident, were presented by the social workers with full reports of the social investigation. A discussion of the plan of treatment—medical and social—brought out student participation. The interest of the students increased, but it was not until later, when the clinical instructor took an active part in discussion after the student presented the case he had worked up personally, that the bearing of the social situation on medical treatment became strikingly apparent.[4]

In the earlier efforts at finding method, we know that we made mistakes. Some of these are clear in retrospect. One of our mistakes was an undue emphasis on the function of the social service department rather than on the relationship between the social and physical findings in the cases. There was, I believe, some confusion in our minds between the definition of the social area in medical practice and the special contribution of the social worker within that area. Each year of experience has made clearer to us the fact that there is on the part of physicians and medical social workers a joint responsibility to see that the social function should be a part of the medical, and not separated from it. Social service rendered by properly trained workers functioning adequately in a hospital should promote the integration of medical and social study and treatment.

In 1925, Dr. Charles P. Emerson presented to this Association his ideas concerning what he called "Environmental Medicine."[5] His original plan, previously referred to, had been modified. He had appointed a

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3. Harper, Grace S.: "Some Uses of Social Case Work in Medical Teaching," Proc. National Conference of Social Work, 1915.
4. Minot, George R., "The Physician, Student and Medical Social Worker," *Boston M. & S. J.*, Dec. 10, 1925.
5. Proc. 34th Annual Meeting Association of American Medical Colleges, March, 1925.

social worker to his team as "clinical sociologist." Dr. Emerson consistently held to his conception of his so-called "environmental medicine" as a part of medicine and as something apart from social service. He states, regretfully, that the medical social service movement seemed "to engulf his project of environmental medicine." If hospital social service were developed as an entity apart from clinical medicine, this might be true. Surely, it should not be so if the social service department is built on a foundation of real integration of the social and medical services. It is out of such departments that clinical teachers have been calling for assistance in their presentation of the social aspects of medicine. I understand that Dr. Emerson's plan has now lapsed with the discontinuance of the social service department of Indiana University Hospital. At a recent meeting of the Education Committee of the American Association of Hospital Social Workers, the present participation of medical social work in clinical teaching was reported. I will give this briefly:

In three medical schools there is official recognition of this participation.

At the University of Pennsylvania School of Medicine, the director of social service has an appointment as "instructor in medical social service." At the request of three members of the faculties of medicine, surgery and dermatology, she is giving instruction and supervision to the medical students in the social side of history taking. A lecture on the social complications of syphilis is also given to the student group.

At Tufts College Medical School, the director of social service at the Boston Dispensary has an appointment as instructor under the department of preventive medicine. The "social aspects of disease" is the title of the course. Lectures and social case study, with participation and social case reading, are the methods used. A period of district service offers an opportunity for the students to participate in social case practice under supervision, thus getting an interpreted experience in the conditions under which sick people live and under which their medical treatment is carried out.

At the Louisiana State University Medical School, the director of social service of the Charity Hospital has an appointment as "professor of medical sociology." Seven hours of lectures are given and the students are assigned to eight hours of home visiting of patients for the purpose of seeing the social situation at first hand.

At the University of Minnesota and Western Reserve University Hospitals, the social workers, at the request of the pediatric and medical services, are part of the group on student ward rounds for the interpretation of the patient's social situation where that is significant.

At Harvard University Medical School, the department of medicine

has enlisted cooperation of the social service departments of the Beth Israel, Boston City and Massachusetts General Hospitals in social case teaching of third and fourth year medical students. The details of the various methods are being studied and evaluated. Limitation of time forbids giving them here. But it should be stated that they all involve active cooperation between teachers of clinical medicine, medical social case workers of experience and students. Several important principles are accepted. The patient, and not his disease alone, is the center of the teaching project. His social and psychologic conditions are studied for their contribution to the total clinical picture. It is recognized that the full meaning of this complex of elements cannot be understood without careful analysis. The skill and technique of social investigation are recognized as needed in some cases to supplement the more one-sided and superficial social history that can be secured from the patient by the medical student.

The New England District of the American Association of Hospital Social Workers has a special committee on "teaching of medical students the social aspects of disease" for the exchange of experience and the study and improvement of the social worker's part in this teaching. They suggest that the social case worker in hospital or clinic may be drawn in "to interpret and illustrate in actual cases the interrelationship of medical and social factors, thus helping the student to apply and integrate the theoretical and departmentalized knowledge which he has previously acquired; to demonstrate the significance of social factors in medical diagnosis and treatment; to help the student to understand the patient as a person and the meaning of illness to him and his family; to show the participation which treatment requires of the patient; to cooperate with the medical instructor in teaching consideration of the case as a whole, and, in this connection, to give especially the long range point of view—showing continuity of medical social treatment over years, the course of chronic disease, the slow process of adjustment to disability, etc.—which is impossible for the student who sees the patient only briefly in clinic or ward."[6] They have attempted a general survey of the social area of medicine that they may see more clearly the suitable rôle of the social worker in this field. It is recognized that many clinical instructors and especially the teachers of public health and disease prevention are emphasizing social significances of their subjects.

It will readily be seen that these programs are still in an embryonic state. That they are plastic and are being consciously molded by those who believe that serious lessons can be taught in the social side of medicine,

6. From an unpublished Outline of the New England District of the American Association of Hospital Social Workers, "The Teaching of Medical Students in the Social Aspects of Disease."

is the important fact at this stage. We recognize the loose use of terms, the lack of definition, at this stage. We are presenting this report of our experience at this time knowing that we are still groping for adequate methods, but convinced that in the area of social medicine we, as students of social problems of the patient and as practitioners of social service in the hospital, have interests that merge with yours. The patients cannot receive complete treatment unless the medical examination and treatment is integrated with social examination and treatment. And this ideal is primarily dependent on the leadership of socially minded physicians. Such physicians will, in the future, come from the student group.

No one can fail to see that medicine is facing, in fact, is now almost engulfed in problems of social policy. Medicine, traditionally sheltered by its concept of personal relations to patients, is being forced into a recognition of its social responsibilities. These problems in the breadth of their scope have been laid before us in three reports of major importance, by leaders in your profession. The reports of the White House Conference on Child Health and Protection, that on the Costs of Medical Care and the Report on Medical Education are permeated with social significance. I quote from these reports:

"Medicine is not an abstract body of knowledge to be used only in a laboratory. It is a living science and art applied to, for, and by human beings and subject to their idiosyncrasies. It is a social as well as a biological science, and it has economic, psychological, and sociological relationships."[7] Again,

"Current medical practice has taken on certain characteristics which resemble those of contemporary industrial life. Considerable emphasis is being placed upon organizations as a means of providing mass production in medical services. Efforts are made to standardize procedures partly as a reflection of methods in the field of industry. These efforts are based in many instances upon the fundamental fallacy that the human being who is the unit of medical service, can be regarded as a uniform, standardized organism. The contrary is known to be the case inasmuch as no two individuals are alike, and no two even with the same disorder react in in exactly the same way. Sound medical practice requires careful study of the health needs of each individual—physical, psychic and social."[8]

Such statements as these are full of significance, but the words are practically sterile unless the ideas back of them are translated into action through the training of medical students. We believe that the clinical phase of this teaching should be impregnated with the vitality of medical

7. Final Report of the Commission on Medical Education, 1932, pp. 22-23.
8. Medical Care for the American People, October 31, 1932, p. 139.

social case teaching, case teaching that leads not only to a deeper understanding of the individual patient, but also emphasizes the general significance which sociology may contribute.

In this effort to get a truer and better integrated medical-social clinical picture, there must be medical leadership. But the clinical teacher of, shall we call it "environmental medicine," should be able to turn to the social service department as to a social laboratory for facts that he can accept as true, and for cooperation in skillfully planned medical social treatment. He should be able to turn to the social workers knowing that the patient's prognosis is often dependent in part on social factors in the case, and the patient's capacity to carry out a specific program of treatment. The extent to which the patient must become a partner in treatment, must change his way of life, control his diet or activities, change his mental attitude, be guided or advised in emotional control, or led to a more philosophical way of facing life—all these aspects of the patient's problems must be recognized in our teaching hospitals where the special attention in medical teaching is now possibly given too exclusively to diagnosis and where the average stay of the patient is about fifteen days. The hospital personnel sees only a small vertical section of the patient's life. It is the consecutive stream of his life that must be made clear. Medical practice as you wish to teach it demands that the physician, with the diagnosis as a starting point, should face life with the patient and give him a sense of security by the fact that he "stands by" over the period of treatment, during which many problems arise on which the patient needs the wisdom of someone who not only understands his physical needs, but also what this upsetting business of sickness with its loneliness, its fears, its uncertainties means to him and his family.

The future of medicine in its social aspects is not, naturally, of concern to clinician and medical social worker alone. It is not so simple as that. The sociologist, the economist, the psychiatrist, possibly the minister have interests in this area. Probably some of them are not yet conscious of how much responsibility they must take in the complicated problems facing medicine. The first step is to get a clearer definition of the social area of medicine and then an intelligent use of the special knowledge and skill from other fields now seen as related to medicine can follow. Medicine has had to learn how to incorporate several sciences into medicine to serve its purposes. We must by some cooperative procedure weld into effective relationship the contributions from the social sciences and arts. Thus, may be met the present challenge to medicine, that its high purposes may be served. Medicine must take the leadership in clarifying this subject. No one has so deep a responsibility in this leadership as the teachers of medicine.

Thoughts Concerning the Teaching of Medical Social Conditions*

GEORGE R. MINOT, M. D.

Professor of Medicine, Harvard University Medical School
Boston, Massachusetts

The young physician entering practice soon finds he received little instruction in the medical school, or as a house officer, concerning certain aspects of the care of the patient, notably as pertains to the social aspects, or social component, of medicine. If he is an able man, he soon appreciates that these aspects form an important feature of many cases. He wishes he knew more of the sort of information concerning family affairs and patients as individuals that the general practitioner of many years ago utilized in his practice. The lack of thoroughness and imperfect skill are causes of many errors in the prevention, diagnosis and prognosis of disease, and the treatment of patients. The diagnosis of the person is often neglected when the diagnosis of disease is considered in detail. The medical social aspects of a case and the intimately associated personality aspects—emotional reactions, the psychological aspects—frequently are not evaluated or appreciated. A considerable fraction of the successful care and treatment of patients and, undoubtedly, the prevention of much illness is to be identified with the proper consideration of social, economic and psychological factors. Living conditions have become, within the century, much more complex, and a better understanding of the problems of daily life and of human behavior will lead to further contributions of value. An intelligent appreciation of the problems and an understanding of how to correct unsocial situations cannot only save suffering, but lead to the prevention of human waste, useless efforts and unhappiness.

From such considerations it has seemed important that the medical student should be taught the significance of social (humanitarian, economic, environmental, psychiatric) aspects of individual persons. It would be of great advantage to the patient and to public health, as well as an aid in the prevention of illness and unhappiness, to awaken the profession to the increasing importance of social factors in medicine. Physicians often neglect to consider the influence of these factors.

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*From the Thorndike Memorial Laboratory, Second and Fourth Medical Services (Harvard), Boston City Hospital and the Department of Medicine, Harvard Medical School, Boston, Massachusetts.

*Read by Miss Ida M. Cannon at the Forty-fourth Annual Meeting of the Association of American Medical Colleges held in Rochester and Minneapolis, October 30, 31 and November 1, 1933.

For about twenty years there has been at Harvard University Medical School a little teaching concerning social service methods in hospitals. Now, however, in addition, an effort is being made to teach the students to appreciate the diagnostic, therapeutic and preventive significance of social aspects, and how to deal with medical social problems in their practice. As is the case for preventive medicine, the need is to permeate the curriculum. To accomplish this will require time and necessitates emphasizing the importance of medical social work by particular efforts; special exercises for the student and education of physicians. At the same time, the social problems must be considered in intimate relation to the physical and psychiatric ones, and as often as possible a correlation should be made with the physiologic, pathologic and other fundamental aspects.

At Harvard, several physicians and medical social workers are conducting special exercises concerning the social aspects, or social component, of medicine; different teaching procedures are being investigated. At three hospitals case teaching, conducted in a variety of ways, is given to the fourth year students during their service as medical clinical clerks. In one medical unit this takes the form of a clinical-sociological conference for students, house officers and members of the staff, which is held every other week. A general lecture concerning social aspects of clinical medicine is given to the whole third year class. The third year students assigned to one of the four hospitals where this class is taught attend three exercises at which there are lectures, demonstrations and discussions conducted by the physicians jointly with the social workers. These exercises concern the social history in diagnosis, in treatment and in the prevention of disease. A committee is studying the problems concerning the teaching of the social aspects of medicine and the ways of increasing attention of hospital staffs and the medical profession to the subject. In the future, perhaps the committee's interest and experiences may lead to the formulation of useful suggestions.

Much of the work of medical social service departments of hospitals and some of the work of other social agencies has been developed from the necessity and desirability of the division of labor among the medical profession. The doctor in private practice, at present, may call on a roentgenologist or a heart specialist to assist him, but the doctor himself must attend to the social aspects of the case, although he may receive help, if he knows how to seek it, especially from the psychiatrist, clergyman, schoolteacher, and the like. It seems important for the medical staff of hospitals and medical schools to link their work and that of hospital social service departments more closely together than is usually the case at present. Intimate relations between the various clinics of a hospital are essen-

tial. The social clinic (social service department) improves the work of them all. The social clinic should be placed on the same plane as other clinics. If this state of affairs alone is brought about, it will aid to awaken physicians to the importance of social problems and thus lead to permeating the medical school curriculum with the social aspects of medicine.

DISCUSSION

On papers of Miss Cannon and Dr. Minot.

DR. G. CANBY ROBINSON (Cornell University): I want to express my gratitude and appreciation to Miss Cannon for coming before us with this very important and interesting communication.

Miss Cannon finds herself in a meeting of deans of medical schools and she belongs there because although she is not a dean of a medical college she is certainly the dean of American hospital social service. We are very fortunate to have this subject brought to us by her.

It is also interesting that Dr. Minot, who has been a chief contributor in one of the most important scientific advances in medicine of the last decade, should also come forward with this plea for extension of the education of students in the art of medicine and in the social aspects of medicine.

First of all, the interest which the teachers in the medical school will take in hospital social service is, I believe, to a very large extent dependent on the exposure they get to good hospital social service. For a number of years we have been interested in trying various methods by which the hospital social service could make its contribution to medical education. I will not discuss the methods we have tried, but one principle is important, and that is the personal contact between doctor, social worker and patient, and in that contact the student should participate.

At the present time, we are utilizing a somewhat new method, which came spontaneously out of the interest in the department of medicine, to devote one day a week to the social service department for students who are assigned to the outpatient department in the fourth year. Two students are assigned on this day to the social service department in the clinic. They do not participate in the actual examination and care of patients, but devote their day to the hospital social service, see the work there and go over various problems of case work in hospital social service. They only have two days during their whole period, but it gives them an opportunity of getting details of what the social worker is doing and what the social worker can contribute, and how the physician and the social worker should cooperate. Nothing is more important in this whole plan we are talking about of viewing the patient as a whole, that contributes so definitely as this intimate knowledge of what social workers are doing, and the awakening of interest in this cooperation by the student in social work. If we get a conception of social work before the student in the plastic period of his development, I think it is very apt to carry through his medical life.

DR. H. G. WEISKOTTEN (Syracuse University): At Syracuse, during the past few years, we have been experimenting in the development of a program to give our students training in the social and preventive aspects of medicine. We felt that this was very important in order to give the student a clear concept of his responsibilities as a family physician. We felt that it was important to impress on him the need for considering carefully all of the conditioning factors that tend to make the individual what he is, and that tend to affect his welfare. We also felt that it was important to impress on him the responsibility of a physician to see his case through to a satisfactory adjustment.

I will not go into the details of our experiment, except to say that we have finally come to the conclusion that we can best carry out this program by making it a part and parcel of their clinical work, of their responsibility in clinical medicine. We conduct a weekly seminar, and at these seminars, which are called medical seminars, one or more students report on some case that has been assigned to them as senior clerks in the hospital. The report is based on a personal investigation of the home, working and living conditions of the patient. Also, the matter of heredity is gone into. The idea is for them to try to find out what it was in the life of that patient which resulted in the patient becoming ill; then to consider whether or not the home is the proper place for convalescence of the patient; whether or not the home, living and working conditions are proper for the patient to continue in after convalescence; whether there are any other individuals in the household who ought to be in the hospital, or who are liable to become ill because of existing conditions.

This seminar is conducted under the chairmanship of the professor of medicine. It is attended by several members of the medical department, by the professor of preventive medicine, by the professor of sociology of the university, and by the medical social worker. Following the report of the student, together with his recommendations, there is a thorough discussion of the case and the student is given the responsibility of following this case through, getting information from the social worker in regard to developments, and making a supplementary report on this case before his graduation.

I do not know whether or not we will continue our present program. We feel that it is well worth while. This year we are working under a small grant from the Josiah Macey, Jr. Foundation, which enables us to assign a member of the department of medicine to general supervision of this work by the students. If we discontinue it, I will still feel that during the period we carried it on we made a lasting impression not alone on the students but on members of the faculty.

DR. A. M. SCHWITALLA (St. Louis University): I think Miss Cannon, in her very superb efforts to arouse interest in the subject, can take a great deal of comfort in the thought that even when special statements are not made in the catalogs concerning courses in the school of medicine, a great deal of work of the kind she has outlined is being done, and that the program of integrating the social service thoughts into the medical curriculum has already progressed far in many centers with which I have had first-hand contact.

In our own school the social worker gives lectures on history taking from a social viewpoint in the course in physical diagnosis, in which we teach our students to take histories in the junior year or in the sophomore year. All through the outpatient work, the social worker sits in at the staff meetings and has her

say on all those cases that come before the staff meeting. The medical students are taught in their diagnostic work to take the social history into consideration, and the social history is put before them in the unit system of histories. In addition to that, during the senior year, during the outpatient and the hospital service, the social history is considered a factor in teaching. The social worker makes ward rounds with the chief of the internal medicine department, and, in general, their process of integration is distinctly effective even though there is no special mention made of the course in the catalog.

Whether or not this is included in the catalog depends largely on the organization of the university. In our university, this work comes under sociology, but has no direct relation with the school of medicine. That does not prevent close relationship between the two lines of endeavor. The chief difficulty we have found is in making clear to the staff members what all of this means, which may have some bearing on the situation.

If I remember the history of the movement very well, it started out on a highly professional basis in the area from which Miss Cannon comes, and as it moved westward it was largely propagandized by the social workers themselves in the hospitals as a method by which the hospitals could increase their income from patients. Unfortunately, or fortunately, as the case may be, this movement gained ground by reason of the fact that the hospitals were told that this was a method of increasing their income.

It is only recently that we have succeeded in breaking up those old prejudices, and this was largely done by separation of what is called administrative social work from professional social work. But in the minds of the physicians the idea is still common that this is a method of helping the hospital to collect funds from patients, and until we succeeded in separating, both geographically as well as in administration, administrative social work from the professional work, we made very little headway. But headway has been made during the last two years, and very distinct gains have been recorded.

Problems of the Lowest Third of the Student Body*

R. M. STRONG

Professor of Anatomy, Loyola University School of Medicine
Chicago, Illinois

In spite of conscientious and discriminating work done by admission officials, a considerable number of young people are admitted into the freshman class of a medical school who later fail to make good records. Even though a grade of better than C is required for admission, the first examinations reveal weak students. Some of these "lame ducks" eventually absorb more of the faculty's attention than all of the good students combined.

It may be asked why the lowest one third has been selected. Why not the lowest fourth or lower half? The answer is that we have found over a period of years that about one third of a freshman class either fail to make the grade or just barely get by into the sophomore year. Furthermore, statistics show that only about two thirds of the students who enter medical schools finally graduate.

I do not need to say much about the causes of poor scholarship to this assemblage. In the first place, they have been treated admirably in papers at previous meetings of the Association by Professors Karpman and Wallin. Furthermore, most of the delegates assembled here have had years of experience in dealing with the problems of poor scholarship. I shall use most of my time in consideration of our procedure with inferior students during the past fifteen years.

It has been our policy at Loyola to give the freshmen class friendly but frank advice during their first week at the medical school. This involves addresses by the dean and regent, and talks by instructors. The importance of a good start and of sound habits of work, rest and recreation is emphasized. The dean as a practical clinician stresses the significance of the preclinical courses. During the first month, physical examinations are made of each student in order to detect and remedy possible physical handicaps to effective work. These examinations are under the supervision of a member of the clinical faculty who is head of a student health service for the university.

As soon as possible, the freshmen are informed concerning their progress as indicated by grades which are given to them confidentially. Confer-

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ences are held with those who have low grades, and some of the advice given at the beginning of the year is repeated or sometimes amplified both to the entire class and, in special form, to individuals. This repetition has been found desirable because the significance of many of the statements made during the first week is not fully appreciated. Still further repetition in subsequent months is required for students who are disturbed by news of low grades. Their scholarship difficulties are, in part, explained by the poor quality of attention and comprehension displayed in this failure to profit by the first advice.

Our freshman students carry only two medical courses in their first quarter—gross anatomy of the extremities and histology. During the winter and spring quarters they take three subjects. There are two reasons for this arrangement in the first quarter. We recognize the difficulty many students have in getting adapted to the exacting work of the medical school. Whether the freshman has had good preliminary training or not, he has usually not experienced such rigorous requirements. Furthermore, the gross anatomy of the extremities and histology involve a larger amount of work than is ordinarily done in two courses.

For some years, we had meetings of the committee on instruction and discipline at least once a quarter when deficiencies in scholarship were considered. Students were refused further admission, even at the end of the first quarter, if they had very low grades. Others not so bad, but with doubtful possibilities, were sometimes put on probation. The probation usually involved maintaining a grade of B—for from one to three quarters.

This practice was dropped, eventually, because it handicapped struggling but not hopeless students too severely. Still later, we decided that it would be more fair to postpone dropping students for inferior scholarship until they had been with us for a year. This change not only gave the student a longer period in which to show his capacity, but it also kept occupied those who were not permitted to enter the sophomore class. Some of these unsuccessful students would be allowed to repeat the year, and we considered it much better for them to have had the entire year than just part of it. Others who were advised to get more premedical preparation, often found it difficult to start work in the colleges until the following autumn.

Any committee dealing with poor scholarship has cases which are hard to decide. Furthermore, there is often much importuning by students who have been dropped for poor scholarship. Even political pressure is used by

some. All of us have had painful interviews with relatives and friends as well as with the students themselves.

With the hope of eliminating some of our trouble in dealing with uncertain cases, we adopted the credit point system that has been in use in some other institutions. We had in mind, also, a principle which we had followed, with variable consistency, that students should not be allowed to go through the medical school with barely passing grades. The credit point system has the advantage of mathematical definiteness, and the student knows just what progress he is making when he gets his grades.

Our credit point values are as follows: A equals 5 credit points per major; A minus equals 4 credit points; B equals 3 credit points per major; B minus equals 2 credit points per major; C equals 1 credit point per major; D equals 0 points; F equals minus 1 credit point. The total number of credit points required for the freshman year is 11.6 and for the sophomore year 12.9. Under such a system a student cannot pass on a C, i.e., 76 to 79 average. He must also have courses in which a B minus or better is obtained to offset the penalty attached to an F. Since we adopted this credit point system, the committee on instruction and discipline has had fewer and shorter meetings. Students are dropped automatically. The registrar's office notifies them of the fact, but adds to the notice a statement that an appeal for consideration for readmission with repetition of the year's work may be made to a subcommittee on appeals. This smaller group considers each appeal carefully and makes recommendations which are subject to approval by the entire committee on instruction and discipline. Freshman students who are only a little short of the required number of credit points are ordinarily recommended to the committee on admission for the next freshman class, or, in the case of sophomores, for the next sophomore class. In no case have we required anything less than repetition of the year, even though the student might be less than one credit point short.

Of course, the credit point system does not abolish importuning. It has, however, reduced the amount of it greatly, also committee members are pestered less. I believe that it stimulates good scholarship. Unusually fine students may make the required number of credit points in the first quarter, and many do in two quarters. We have had no evidence that these students were less ambitious after obtaining their quota of credit points.

We have been much interested in the results of allowing some students

to repeat rather than be dismissed. It is sometimes suggested that it might be wise to be hard-hearted toward all students not clearly capable. Possibly it would be better for the public and the medical profession, in general, to weed still more severely. Most of you probably agree with me in considering it simple justice to the student and his parents that he be given ample opportunity to make good. Some of these students in the lower third make good doctors, and a few may be especially successful. Who of us does not know of such cases?

I am more and more impressed with the importance of arousing young people who are potentially capable but have not yet waked up. They often come from good homes. The busy father, sometimes an eminent physician, may not have given much time to the boy, and the mother may have been indulgent. Both parents, on the other hand, may have devoted much attention to the training of the children, but the school may have been of poor quality. A great variety of conditions exist, but the essential point is that the boy or girl is immature or more or less spoiled. Some of these young people may develop into better doctors than do industrious but dull individuals. Our problem is to sort them out for discriminating treatment.

Of course, we must be careful in salvaging indolent students to be on our guard against passing along those who are hopelessly lacking in character. Our policy is to be severe in cases of dishonesty and to try to create conditions which will favor honest work. I am more and more impressed with the importance of giving very great consideration to the organization of our courses so that every student will be compelled to work independently.

For this reason, I do not myself give grades on any written exercise not done in a room supervised by monitors. Furthermore, I try to plan written work that is done outside of class so that the chances for cheating are reduced as much as possible, even though no grade is given.

I am convinced that a very large number of students have been accustomed, even in their premedical college years, to more or less cribbing, and I believe that one of the best things we can do for such students is to compel them to go through all exercises that involve a grade, independently, and with no chance to be dishonest. If, at the same time, the instructor is reasonable, competent and fair, the student who has hitherto leaned more or less on others, learns that he must and can stand on his own feet.

For more than ten years, we have conducted our final written examinations with members of all four classes seated in the same room. In this

arrangement, each student is four places away from anyone taking the same examination. With a capable monitor, who is a member of the preclinical faculty, in charge, the opportunity for cribbing is very small. In the case of other written tests, we have used various devices to avoid placing students near enough together to make cribbing possible.

Let us consider, again, the practice of allowing students to repeat a year in which they have not done well. It might be better if the entire class could repeat at least the freshman year when so much fundamental basic work is taken at a rather rapid pace. Laboratory assistants say that they learn more when they teach in a course than they did as students, and they are honor students who got more out of their courses than do their class mates before becoming assistants. For weak students, the review should be still more helpful. We try to show to repeating students how great an opportunity they have if they take the proper attitude. This involves consideration of the bad advice many of them had before entering the medical school. Too many loose-talking and not over-scholarly practitioners tell prospective medical students that their medical courses, especially the preclinical courses, are unimportant, the real training coming after graduation.

On the whole, our students have done creditable work in repeated courses. During the past ten years, thirteen have repeated the freshman year and twelve the sophomore year. We have had no failures, three had C grades, seventeen B minus and six made B grades. All of these students, with one exception, have had a B minus average in courses taken after the repeated year. Eleven have graduated, and the others, with one exception, are still in school.

With all due respect to the results of so-called intelligence tests and IQ determinations, I have never given up the belief that a majority of failures among students who succeed in entering the medical school are not due to congenital stupidity. Faulty training, bad living conditions, and distracting circumstances are responsible for some of the seeming dumbness. The significance of these factors has been shown ably in the papers of Karpman and Wallin, mentioned earlier in this communication.

About two years ago we began a systematic comparison of the success of students in the freshman year for the institutions in which they had premedical work. This practice is yielding important data for our committee on admissions. We are also informing the deans of these institutions, in quarterly reports, concerning the work of the student they send us. We hope this procedure will be influential in improving the quality of the

instruction in certain institutions. It is not so easy for us to reach the primary and secondary schools where much of the responsibility for poor scholarship belongs, but possibly the colleges can do something along this line.

Some of the views and practices discussed in this paper may not meet with the approval of educators who do not like definite schedules and precise routine. We have been watching so-called new plan movements with much interest. Our experience and observations do not convince us that leaving so much to final comprehensive examinations is good for the lowest third of the student body. Moreover, we believe that most freshman medical students still need discipline in precision of thinking and in correlation of experiences. The average age of freshman medical students has gradually been decreasing. Students are often only 20 years old at entrance, and many are decidedly immature. In spite of having had two years of college work, such students still profit by personal guidance, modified, of course, from that in vogue in the secondary schools.

Finally, we believe that a student should not be dismissed with the impression that he is a failure in life. Friendly advice and encouragement to try some other profession or occupation, if given wisely, can be of immense help to a bitterly disappointed boy. This can be done by the dean or by some faculty member who knows how, but it should not be done carelessly.

DISCUSSION

DR. E. P. LYON (University of Minnesota): I noticed that Dr. Strong reported on a number of students who repeated, something like 25. Was that a selected group? That is, was a certain number only allowed to repeat or were all who desired allowed to do so?

I would also like to ask if others who have had experience in the matter of repeating students will give us their experience.

DR. A. M. SCHWITALLA (St. Louis University): I wonder if the time has not come for this Association to fall into line with what other educational associations are giving very considerable attention to, namely, the development of qualitative standards in place of quantitative standards; a breaking away from the rigorous formulations we have had in the past regarding the number of credit hours, the number of grade points, and devoting attention rather to a definition of some qualitative standards that might possibly be developed.

The North Central Association, as you know, at its meeting in March, 1933, placed itself on record that it is now seriously engaged in the development of those qualitative standards. Whereas, formerly it was asked, when it came to the question of the evaluation of teacher training, how many years of educational experience did the teacher have in college, subsequently under supervision, and later on still in the actual classroom of the independent teacher, the question is now worded something like this or, rather, the standard is worded something like this: "The teacher who is an acceptable teacher in this Association (I am quoting freely) must give evidence that he or she is able to teach the course that has been assigned to him or her." The character of the evidence, in place of being evaluated in terms of so many credit hours or so many years or so many courses, is left to the school that is sponsor for the teacher.

Similarly, a school that is acceptable to this Association must give evidence that it is able to carry out the educational policies announced in its annual catalog. The character of the evidence again is left to the school, and the value of the evidence is later on studied and, if possible, corroborated by the visiting committee of that Association. I think htis has introduced a new era into education and lays stress on the intangibles in education. I hope there may be some possibility of developing a qualitative standard for medical students.

Dr. R. M. Strong (Loyola University): Answering Dr. Lyon's question, most of the students who have failed have been dropped, but occasionally we have had some who we thought should be allowed to repeat.

The Medical Student and Man*

WILLIAM S. LADD, M. D.
Associate Dean, Cornell University Medical College
New York City

My friends, I welcome you most cordially to another year of work at the Cornell University Medical College. I do this in behalf of the President of the University, the Director of this Association, the Faculty of the Medical College and the staff of the New York Hospital.

This is an occasion which is of great moment to you all, for it marks for you the beginning of a new investment in life, the business into which you are going to put all the capital at your command. Some of you have already been at work with us a number of years—and we are glad to see familiar faces—but you are still at the beginning of your investment. About a quarter of you are not familiar to us and probably find yourselves feeling rather strange and full of mixed curiosity and enthusiasm. I hope so, for to carry through and on, a doctor certainly needs a zest for his work.

I want to talk with you for a few minutes, about two or three things more or less related to each other; things that have to do with your life here at the medical college, and that will influence it greatly later on. I wish to present certain ideas for your consideration.

If, as I have just suggested, you are at the beginning of a new investment in life, if you agree that you have begun upon a lifelong task, for the study of medicine is just that, it is well to take stock of yourself now, and to inquire whether there may not be some landmarks by which to set your course. When a new country is to be traversed, the voyager first looks about him to get his bearings, he considers from whence he has come, and then, having pondered his objective and the apparent means of attaining it, he begins to move forward. This work you are now beginning will not be finished in four years. You are looking forward to the attainment of the degree of Doctor of Medicine in one, two, three or four years, as the case may be. But that will not be the end of your medical education—that degree means only that you have qualified for the beginning of it.

You students, those new to us and those familiar to us alike, are culled from a large group, chosen on a basis of merit from your record of past performance and your natural endowments. You were chosen with the expectation and belief that, considered individually, you can not fail to meet the minimum demands that modern medical education makes upon

*Address of welcome to the Cornell University Medical Students, September 25, 1933.

you; that the chances are in favor of your being outstanding students of medicine; that you are the ones of all those considered whom we would best like to teach and whom we expect to see graduate, and go through life as well-functioning citizens at work in the field of medical science and practice. This does not mean that you are all alike or that you all have the same capabilities and potentialities, but it does mean that in the judgment of those intrusted with the task of making the choice you are expected to make good.

I am not sanguine about any man's ability to pick men—nor even of the infallibility of the judgment of a group. Almost each year sees the membership of the classes depleted by one here, another there. This is not always because they do not measure up to the task intellectually—or because they have not tried. Some are handicapped by ill health, financial difficulties, or by the share they must take in bearing the burdens of family or friends. Occasionally someone finds, to his surprise, that he is not interested or that the work is distasteful, and comes to the realization that he will be happier in some other activity. These, of course, are valid obstacles to carrying on. On the other hand, with sufficient forethought most of these obstacles could have, or should have been solved, or the subject at least postponed until the possibility of a way seemed reasonably clear. Whatever the factors in your individual case may be, the point I wish to make is, that you are chosen with the expectation of performance, the criteria for which are moderate rather than extreme. Furthermore, no matter what the experience of past classes may have been, or what the experience of your class in the past may have been, there is the definite opportunity, and, as far as we know, the definite possibility that each and every one of you will successfully complete the qualifications for your degree.

I think the chief and most prominent landmark which you will recognize in this new country you are about to traverse, is a somewhat different attitude toward your work. You are now graduate students—you are out to get something and make it a part of yourselves. That getting something and making it a part of yourself is the process of laying a firm foundation for your future. Some of you may have already arrived at this realization, but the more common experience of the American boy is different. From grammar school until the end of college, his attention is too often focused on the attainment of credits. He works to get by, or, he may work to do better than get by. He may have set his eye on Phi Beta Kappa or other prizes. Nevertheless, he gradually accumulates so many credits here, so many there, and thus progresses from grade to grade, school to school, until finally he is here.

Now of course for practical reasons tests must be devised, examinations given, and students graded. But that is not where the emphasis should be.

Some of the modern secondary schools are succeeding in giving the student a vision of the pleasure of working for the thrill of the work itself. Fortunate are those who have caught that idea, and, it should be observed, that rarely does the student with that vision fail. Rarely is he hounded by the thought of failure. Marks and grades become incidental, but follow with remarkable satisfaction. It is unfortunate that the credit system so often distracts the mind from the real task at hand.

So I believe that the first landmark you will notice in this new country is a change in the emphasis on the objective. You will not become good doctors or worth while laboratory workers by accumulating credits or grades. Turn your attention to the task in hand. Make the substance of your work a part of yourself—master it—forget grades. They will take care of themselves satisfactorily if you "know your stuff."

Now another land mark is this—you are regarded here as mature men and women with a definite purpose. You will find that the faculty of this college, who are to be your advisers in this life investment you are making, will strive to show you in a sympathetic and encouraging manner many opportunities for the exercise of your talents. They will, nevertheless, be critical and demand of you, if you are to hold their interest, a high standard of performance. For your advisers are anxious that, and insist that, the quality of living and doing that is the criterion by which your fellow citizens will appraise you later, shall be the best that is within you. You will find, therefore, that these men and women who are your faculty regard you as gentlewomen and gentlemen. For this reason you will find no rules of conduct other than those regulations necessary to a smooth system for your work, and such regulations of buildings and grounds as we must all submit to, faculty and students alike.

For example, the problem of whether or not examinations should be proctored has been broached occasionally. As far as the Dean's Office is concerned, this is left to the discretion of the heads of the different departments. As a matter of fact, it depends upon you students as a social group. It has not been the custom to proctor examinations at Cornell Medical College. The extent to which any social group must be policed depends upon the behavior of the group. I can see no reason for proctoring examinations while you hold the regard of your fellow students and faculty as gentlemen.

Another difference between your undergraduate life and your life here in this new wilderness is the complete freedom and independence you have. There is no dormitory. You must find your own lodgings. There are no recreation facilities at the school at present. No physical exercise is required. You must schedule your own life and keep in condition according to your own judgment and desire. No one asks where you live, what you

do, where you go. Why should they? You are beginning to be faced by the problem of finding a place for yourself in the community just as you will face it when you go out to practice in a strange city or country. Whatever you do you are making your own life.

Give some thought to your lodgings, their location and accessibility. Arrange your daily routine systematically. The wise scheduling of the hours of work and leisure, of eating and sleeping will have its effect upon your work. New York is a fascinating city with opportunities for all sorts of diversion. There is the best as well as the worst. Take advantage of being in New York. You will find that the college administration can help you a little with suggestions, but the problem is yours to solve and it would be well to solve it as satisfactorily as possible at once.

Now let us look ahead a moment at the work in hand. This adventure upon which you are setting forth—the study of medicine—is, in fact, the study of man and his ways. Man is by far the most fascinating object to study that exists. You will study his structure both in its gross and its minute aspects. Then you will study the functions of the various parts of that structure. The emphasis will first be upon the so-called normal man, that abstraction which rarely, if ever, exists. To understand the meaning of disease you must know what is expected in health. Before you have completed the first two years of your course you will be introduced to the deviation from health found in the diseased structure. You will study man's intimate environment, the minute organisms that live on him and with him —both in health and disease. You will study qualitatively and quantitatively the substances which go into his structure to enable him to grow, maintain life, and to function. You will study classes of substances, inorganic and organic, which have specific effects upon his structure and functions. You will study his waste products and learn the relation between them and the states of health and disease and the significance of their indications.

In your first year, in the course in psychobiology, you will be introduced to the study of the mind, the mechanisms of thought, the effects of the emotions, those intangible things which we cannot measure as we measure stature and blood corpuscles, salts and water, but which, nevertheless, are as powerful in their effects on the physical organism as bacteria and chemicals. An understanding of them is as essential to the successful practice of medicine, and is as important to society, as any of the other phases of your work. In short, your first two years are a study of the details of the human economy.

All this means that there is a great mass of facts to be acquired. You cannot expect to have them all at tongue's end or finger tips at once, but

it is essential that you become familiar with them and as far as possible store them away, so that you will at least know where to find them when needed in dealing with your patients. There is also the problem of the correlation of these facts; the acquiring of an understanding of their relationship and significance. This is, certainly, as important a problem as the acquisition of the facts themselves.

As I remember the first two years of medical school work, fascinating as the subject matter was, it seemed a long, long way to clinical medicine, that contact with sick people to which I eagerly looked forward. But be patient, and persistent, these facts and their relationships are the foundation of your structure as a doctor.

Then, suddenly, half way through the four years, you will begin to have to do with patients. Now the work will become still more fascinating, even romantic. You will have to modify your attitude somewhat—you will be working with material which consists of live, sensitive human beings, who are struggling with life as you are, who have in addition to their work in life and their pursuit of happiness, the problem of disease in one form or another. I say you—then—may have to change your attitude and watch your step, because you are no longer dealing primarily with specimens, inanimate substances, test tubes and the like, but with live people who are sensitive, not only of themselves, but to you, and your attitude toward them. Too often the tendency is to carry over your attitude toward the inanimate material with which you have been working, and regard the case as merely a thing. It may be a very interesting case, but the case is also a man or woman, even as you are.

Now what about all this ground work, all these facts, all these relationships of substances, organs and functions of the human being? It is a mass of material far too great to have ever ready, so that all, or even parts of it, may be brought to consciousness at the desired moment. One hears the query "Why spend so much effort to learn this or learn that, soon to be forgotten?" Well, we know, that even though sometimes fact and experience are beyond recall, they are often there, in the mind, and if thoroughly assimilated in these years of training, have their unconscious effect upon one's judgment when dealing with problems later on. Why is it that some clinicians seem to have great ability in diagnosis, and wise judgment in what to do for patients? We often speak of a man's action as intuitively remarkable. Now I make apology for my opinion, for it is a long time since I have studied psychology, but it seems to me that intuition, this instinctive ability to make wise judgments readily which we so admire in great men, arises from several sources. (They might, by the way, be taken as landmarks by which to guide your course.)

The man who has great intuitive faculties, usually, if not always, has first mastered the subject matter of his work—those very things which you are studying in your years of medical school—which, as I have said before, are the foundation stones of the science of medicine. Second, he is a man who has trained himself as an accurate observer. He takes things in at a glance which some of us miss. Consciously or unconsciously he uses them. Third, he is a man of experience—not that he has seen so much, but what he has seen, he has experienced, and again I repeat the sentence, "He has made it a part of himself." Fourth, with this experience he has developed a critical ability—the ability to separate the essential from the unessential, to hold the essential for future use and let the unessential go. This is something you must strive for in all your work. This critical ability is as important to good preclinical work, anatomy, physiology, chemistry and bacteriology, as in the experiences of clinical medicine. It is one of the great factors which seems to make it possible for some men to know so much. Lastly, I believe that some men are endowed with greater abilities along these lines than others. The duckling when hatched takes to the water almost at once, and knows what to do. The chick if put in water drowns. There is certainly an advantage in generations of trained forebears.

Perhaps now you can see the reasons for my remarks about your work and your attitude toward it. I think that if you will remember the objective you seek and bend every effort toward the mastery of the subject matter concerned, you will agree that there is little chance of failure. The making of yourself into a Doctor of Medicine is what you are after. The degree will come as a matter of course.

There is another phase of medical education about which I should like to venture some remarks. I wish all of you would read, if you have not done so, Professor Sigerist's "Man and Medicine." It will give you a clearer understanding of the inheritance of medical science—the reason why the doctor today has certain attitudes towards his profession, his work and his patients, and, obversely, an understanding of many of the manifestations of the attitude of society toward the physician. I wish especially to call your attention to the chapters entitled, "Man," "The Sick Man" and "The Physician." They will be simulating to any of you.

Today, the student of medicine should turn his attention toward the social aspects of medical science and medical practice. People's social ideas are changing fast. Revolution is the order of the day. The spectre of chaos threatens us all. At times the only salvation seems to be a dictatorship, the main reason for which is the lack in the people themselves, of common knowledge concerning their problems, and an understanding of them.

Today, the social relationship of the doctor and the people is in the arena of discussion. The cry on the one hand is, "What can we do about this great cost of medical care?", and on the other, "How can a doctor make a living?" The patient wishes the services of the doctor whom he chooses at less cost, and he wants personal service. The doctor is afraid that the state or social groups will rob him of the independence he believes he enjoys—the right to see what patients he chooses and the chance to make a comfortable income—which, he believes, will disappear if he is controlled by the state or other social groups.

Recently there have been published three splendid treatises, dealing with various phases of the relation of the doctor to society: "Recent Social Trends in the United States," which is the Report of President Hoover's Committee on Trends; "The Final Report of the Commission on Medical Education;" and "The Final Report of the Committee on the Costs of Medical Care." These three reports have presented new facts and data concerning conditions existing in this country and elsewhere, of which many of us were not aware, and which are exceedingly informative and illuminating. Among the opinions voiced were some that have seemed revolutionary to many. There has been a storm of criticism, at times hostile, even to the point of vituperation, and again the retorts have been caustic. These problems are extremely complicated and not easy to solve. Most of the nations of Europe have faced them for sometime, and now they confront us. No satisfactory answers have been found yet in schemes of state medicine, health insurance or group practice. Now there should be criticism and debate, but there is no place for hostile vituperation. The problem remains and the facts of the situation are about us and can be ascertained. The problem should be approached with a constructive, cooperative point of view. Only in that way can a solution be reached, unless it is taken out of the hands of the physician by society itself.

This problem is but a part of the greater problem—that of people learning to get along with each other. Perhaps this is the field of human relationship where we have made the least advance in the slow, long progress of mankind. Greek civilization, with all its marvelous intellectuality, philosophy of health, and beautiful art, failed largely because social groups were not able to get along with each other, and maintain one strong and stable state.

An example at hand may be seen in the confusion that exists today in New York City politics.

Now fellow students, I am not exhorting you to mix in politics—you have another task at hand—but I am asking you to make yourselves intelligently aware of what is going on about you. You must be citizens as well as physicians. You should not shirk the duties of citizenship. Physi-

cians have the opportunity, in a quiet way, of wielding considerable influence on the body politic, not so much perhaps by a partisan attitude as by the opportunity of showing patients what a tolerant, scientific attitude toward the problems of life may mean.

In spite of the broad training of the physician and his scientific approach to questions, I am afraid that doctors, as often as not, tend to be narrow minded socially. They often are extreme individualists. They tend to be made so by their training and experience. On the doctor alone, the patient depends. His judgment alone counts. He alone is responsible, and he alone makes the decision which has to do with life and death, health and disease, happiness or misery. To the physician in private practice there is little chance to shift responsibility. So the doctor, although his field of activity is a broadening experience on the one hand, often tends to be an extreme individualist and non-cooperator.

Another part of the doctor's relation to society has to do with matters of personal conduct. This is usually spoken of as medical ethics. Before any student of this college receives his degree as Doctor of Medicine, he must take the Oath of Hippocrates. This is not an idle gesture. It is a sacred pledge, carrying on that fine and noble spirit of the world's greatest profession, as conceived in the minds of our Greek physician predecessors.

This Oath of Hippocrates to which you subscribe, however, has been modified and changed in order to be in accord with the more modern methods of medical practice, and the changing social conditions of the world. Some day go to the library and acquaint yourself with a translation of the Hippocratic Oath. There are two to which I can refer you. One is that which you will find in the second volume of Francis Adams, "The Genuine Works of Hippocrates" and the other is that of W. H. S. Jones entitled "The Doctor's Oath," Cambridge, 1924. Read those translations and the notes in commentary, and compare them with the oath to which you are called upon to subscribe at this medical college. You will note that the intent and spirit are the same, but that they are quite different in wording and content.

Today one of the great nations of the world, the Union of Socialist Soviet Republics, has made artificial abortion legal. In this country there is being waged today a fight to change the federal and state laws that have to deal with the giving of information on contraception and the use of contraceptive articles. The former directly, and the latter indirectly, are held by many as the breaking down of the morale of medical ethics and as a violation of the Hippocratic Oath.

Thus in another phase of your relation to the public, that of personal conduct, you will sooner or later be called upon to take some definite per-

sonal stand. Citizens have been classed as of three general types: those who are predatory, the criminal and their class; those who are indifferent, who refuse to take responsibility; and those who are socially minded—who exercise their vote and try to work constructively for social improvement. I hope you will all choose to be members of this last group. Although you, as students here, must concentrate on your scientific studies, I ask you in your leisure moments to be thinking socially and not merely individually. Only by the thought of men and women so educated can these harassing problems which face us today be solved.

To deal with the people and their medical problems you must not only be able to think according to your best knowledge of the laws of science, but you must have in addition a broader point of view—one that encompasses man as a human organism, living in an environment in which his human relationship may be as significant as his relations to food, fresh air, sunshine, micro-organisms, drugs and poisons. You must become philosophers, detached, and yet intimate with man's problems; tolerant and sympathetic but firm in your best judgment; gentle, but when the circumstances demand action, decisive; honest, but not destructive in the amount of information you impart. The sense of humor should not be lost. It often smooths and saves a situation.

Man has gradually been growing out of a world of superstition and ignorance. His desire to live is very strong, yet the fear of death is in every sick man's mind. As he has gained knowledge he has become more fearless. Historically, at times he has surged forward, then receded, in the field of knowledge. As new facts are discovered a new understanding is gained and the relative significance of what was known before changes. Today the blanket of superstition still covers the heads and eyes of many, particularly in the field of religion where man has been wont to look for his inspiration. Man as a race has come through such a hard life, in which there was so little happiness for many, that the thought of a promised land after life was the only thing that gave him the courage to go on. That still seems necessary to some today. But I ask you to turn to the problem of making this life, not only livable but happy. The now and the here is your opportunity for heaven.

If you are imbued with the determination to be a doctor, to help people gain health and live again, in the fullness with which it is possible to live, you cannot help but be inspired by your work. Life itself is the greatest adventure. The very problem of restoring man to health and functioning citizenship cannot help but call forth all your powers, stir you to the depths, motivate you with the highest ethical conduct. Life's problems no longer remain questions of sin or goodness in the eyes of a

supernatural being. They are matters of attitude toward your fellow men: kindness as against meanness; helpfulness as against indifference or obstruction; the effort to produce the beautiful rather than the ugly; fineness as against vulgarity. Things are often a matter of taste rather than right or wrong (this must not be confused with correctness or incorrectness). Happiness on earth is the thing to be sought.

You will form your opinions of these things based on your own thought and experience. I do not ask you to accept mine, but I do hope that you will build a philosophy of living for this world of today, with its work and play, seriousness and buffoonery.

In his life of Justice Oliver Wendell Holmes, Bent quotes him as saying in his 90th year ' "But I may mention one thought that comes to me as a listener-in. The riders in a race do not stop short when they reach the goal. There is a little finishing canter before coming to a standstill. There is time to hear the kind voice of friends and to say to one's self—"The Work is Done." '

' "But just as one says that, the answer comes; "The race is over, but the work is never done while the power to work remains." '

' "The canter that brings you to a standstill need not be only coming to rest. It cannot be, while you live. For to live is to function. That is all there is to living." '

And Justice Holmes goes on to say ' "And so I end with a line from a Latin poet who uttered the message more than fifteen hundred years ago;

"Death plucks at my ear and says
"Live, I am coming." ' "

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Inspection of Medical Schools

As the result of discussions and conferences initiated by the president of the Association of American Medical Colleges, Dr. Ross V. Patterson, as authorized at the annual meeting of the Association held in Rochester-Minneapolis last Fall, The Association, the Council on Medical Education and Hospitals of the American Medical Association, and the Federation of State Medical Boards will join in making a careful inspection of all medical schools in the United States and a general survey of medical education.

Funds for the undertaking have been appropriated by the Board of Trustees of the American Medical Association. The Executive Council of the Association of American Medical Colleges has voted to recommend to the Association at its next annual meeting, to be held in October, 1934, that if needed financial support be given to the project.

Final plans of procedure have not yet been formulated, but it is possible that inspections will start in the near future and that the work will be completed within a two year period.

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Results of Bar Examinations

It is customary among medical groups to take pride in the lessening number of failures among aspirants for licensure to practice medicine at the examinations held by state boards of medical examiners. In 1932, the percentage of failures was 7.7 for all schools. For the 65 approved medical schools in the United States, the percentage of failures was 3.7 per cent. More than 5,000 applicants were examined.

The *Bar Examiner*, April, 1934, publishes the data on admissions to the Bar by examinations in 1933 in all states. The figures are extremely interesting, although not entirely comparable with similar ones obtained from medical statistics in view of the fact that many of the applicants for the right to practice law probably had not attended any law school but "studied" with a lawyer. However, slightly more than 18,000 applicants took the examination in 1933, and 54 per cent were refused licensure. In one state, only 27 per cent passed the examination, representing 204 examinees. In only one state did all the examinees, ten in number, pass—a 100 per cent record of passing. In twenty states less than 50 per cent passed, and in only three states more than 75 per cent passed.

The record of failures over a three year period, 1931, 1932 and 1933, was 52, 55 and 54 per cent, respectively.

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Approved Hospitals

In the Hospital number of the *Journal of the American Medical Association,*

March 31, 1934, are published the data on hospitals collected by the Council on Medical Education and Hospitals.

The Council gives approval to 6,437 hospitals, having a capacity of 1,027,046 beds and 52,464 bassinets. The Council gives its approval to 677 hospitals offering 6,074 internships and 370 offering 2,438 residences. The Council does not approve of 576 hospitals, or 8.2 per cent of the total number of existing hospitals.

This report contains so much information of value to all those who have need for it, that it is impossible to make a worth while abstract of it or to essay editorial comment. It should be studied carefully. The Council must be congratulated for its work.

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American Students in Foreign Medical Schools

The Prussian Ministry of Education reports that it has not received applications from Americans for admission to German medical schools during the past six months.

In the same period, few applications have been made to the medical schools of Great Britain. Apparently, the stand taken by the educational authorities of the United States is achieving its objective.

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Association for the Advancement of University Education in Dentistry

Eight schools of dentistry have associated themselves together for the advancement of education in dentistry in accordance with the highest university standards; for the fostering of its rational integration with medical education; for the development of the science of dentistry through graduate study and investigation; and for the mutual improvement of the subscribing schools by the consideration of problems of common interest: School of Dentistry, University of Buffalo; School of Dental and Oral Surgery, Columbia University; Dental School, Harvard University; College of Dentistry, University of Illinois; College of Dentistry, Ohio State University; The Thomas W. Evans Museum and Dental Institute School of Dentistry, University of Pennsylvania; Tufts College Dental School; School of Dentistry, Western Reserve University.

The address of the secretary-treasurer of the Association is 188 Longwood Avenue, Boston, Massachusetts.

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Reform of Medical Education

Elsewhere in this issue of the JOURNAL (p. 182) is reprinted a paper written by Professor J. Tandler, of the medical faculty of the University of Vienna, and published in the *Quarterly Bulletin of the Health Organization of the League of Nations*, Geneva, Switzerland, September, 1933.

This paper discusses many, virtually all, of the problems in education and in practice now confronting the profession of this country. Readers will not be in agreement with all of it—but the part dealing wtth the reform of medical teaching and medical training presents much which should command careful consideration, even though it is not all of it new material.

The curriculum—what it should be—and methods of teaching—what to teach and how to teach it, is presented clearly and logically and in complete accord with the views held by medical educators in this country.

On the whole, this is an admissable paper, one which deserves being read and then made use of if its propositions can be adopted to the needs of American medical schools.

College News

Boston University School of Medicine

PROMOTIONS: Professors — Louis G. Howard, M. D., orthopedic and fracture surgery; Rudolph Jacoby, M. D., dermatology and syphilology; Winfred Overholser, M. D., psychiatry. Associate Professor: Otto J. Hermann, M. D., orthopedic and fracture surgery. Instructors: Anna M. Allen, M. D., neuropathology; Jose P. Bill, M. D., public health; Ralph M. Chambers, M. D., clinical psychiatry; I. William Freeman, M. D., pathology; Joseph M. Hussey, M. D., pathology. Assistants: Phillips Boyd, M. D., surgery; Bert B. Hershenson, M. D., gynecology. Fellow: Charles Bradford, M. D., surgery.

Dr. Frederick W. Colburn of the department of otology, who has been connected with the School since 1901, has become professor emeritus.

Under the plans of the public works administration for taking care of needy and worthy college students financially, about 25 students were given jobs in Boston University's school of medicine. The work which they do in return for credit on their tuition charges, includes assistance to members of the faculty, library, clerical, stenographic and janitorial services.

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University of Manitoba Faculty of Medicine

The Fiftieth Anniversary of the Manitoba Medical College will be observed May 14 to 19 with a clinical week. The occasion will not only celebrate fifty years of medical teaching in Manitoba, but will also inaugurate a series of postgraduate courses to be provided by the Faculty of Medicine of the University of Manitoba each year. The clinical program provided will be of a thoroughly practical nature, and is planned so as to be of value particularly to doctors in general practice.

This course is intended for all medical men west of the Great Lakes who wish to attend. Although this year the Jubilee of the Manitoba Medical College is being celebrated in conjunction with the clinical week, graduates of all medical schools are cordially invited. All Canadian Universities are being asked to send representatives, who will contribute to the program. A series of clinical lectures will be given on subjects of practical every-day importance. In addition, each day there will be a series of practical demonstrations to small groups of twelve doctors, to demonstrate the technique and difficulties of various clinical procedures.

On May 14 there will be a public reception and ceremonial meeting at the New Winnipeg Auditorium, with an address on "The Progress of Medicine in Fifty Years," by Dr. D. A. Stewart. Guest speakers will address a special scientific meeting on May 15, and Professor William Boyd will deliver the Gordon Bell Memorial Lecture on the evening of May 18. The Convocation of the University will be held on May 16.

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University of Cincinnati College of Medicine

Dr. A. C. Bachmeyer has resigned as dean, the resignation to become effective September 15. This resignation is the result of an order of the City Manager demanding that Dr. Bachmeyer give all of his time to the superintendency of the Cincinnati General Hospital, a position he has held for many years. With the consent of the city authorities, Dr. Bachmeyer accepted the deanship of the medical school in 1924, retaining his posi-

tion as superintendent of the hospital. He retires from the deanship, leaving behind him an enviable record of noteworthy performance which has put the College of Medicine securely in a high place among medical schools. He relinquishes this position because the city authorities feel that the hospital needs all of his time and energies to cope successfully with the exigencies and stresses of the times. His abilities as a hospital administrator are recognized widely.

Dr. Bachmeyer will retain his professorship in hospital administration in the College of Medicine.

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Georgetown University School of Medicine

Under the provisions of the Kober Foundation of Georgetown University a lecture is delivered at the university by an outstanding member of the medical profession on March 28 each year to commemorate the birthday of the late Dr. George M. Kober, formerly dean of the Medical School. At the same time a medal is presented for high scientific achievement in the field of medical research.

This year the Kober lecture was delivered by Dr. Walter Bradford Cannon, George Higginson Professor of Physiology at Harvard Medical School. The title of Dr. Cannon's lecture was "The Story of the Development of Our Ideas of Chemical Meditation of Nerve Impulses."

The Kober medal for 1934 was awarded to Dr. John Jacob Abel, professor of pharmacology at Johns Hopkins University. The medal will be presented to Dr. Abel at the annual meeting of the Association of American Physicians to be held in Atlantic City early in May.

Faculty appointments: Dr. Wm. P. Herbst, Jr., professor of clinical urology and chief of the Georgetown Urologic Service in Gallinger Hospital; Dr. Laszlo Detre, special lecturer in immunology; Dr. W. F. R. Phillips, visiting professor of anatomy; Dr. Jos. L. Schwind, associate professor of anatomy; Dr. Philip L. Gray, associate professor of pharmacology; Dr. J. R. Schenken, instructor in pathology.

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Loyola University School of Medicine

With a desire to promote cooperation between premedical and medical faculties, Loyola sends quarterly statements of grades of freshman medical students to the deans of the colleges in which they obtained their premedical college training. Accompanying these statements, an offer is made to send, on request, the comparative standing of a student in his class. These ratings are believed to be helpful to the deans in evaluating work done in premedical courses. There has been a highly gratifying expression of appreciation of this information, by the deans, during the three years that the practice has been in operation.

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New York Homeopathic Medical College

The Board of Trustees has negotiated for 200 mgs. of radium. Dr. J. Campbell Howard, professor of radiology, will be responsible for the use of the radium, which will be available for the clinical patients of Flower Hospital as well as for private use.

Through the will of the late Mrs. Frances Ogden Jones, the College and Flower Hospital receive $15,000 for the endowment of free care of patients in Flower Hospital.

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University of Wisconsin Medical School

The eighth annual address under the William Snow Miller Lectureship was delivered by Dr. Chauncey D. Leake, professor of pharmacology in the University of California and formerly a member of this faculty. His subject was, "Relations of Medicine and Art."

Stanford University School of Medicine

Dr. Donald Elliot King of Ann Arbor, Michigan, has been appointed to the Division of Orthopedics, Department of Surgery, to replace Dr. Leonard W. Ely who retires from the faculty at the end of the present academic year. Dr. King received his A.B. degree in 1923 and his M.D. degree in 1927 from Stanford University. He has been a member of the staff of Orthopedic Surgery at the University of Michigan since 1928.

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Jefferson Medical College

The William Potter Memorial Lecture was delivered March 1, by Charles R. Stockard, professor of anatomy, Cornell University Medical College. His subject was "The Genetic Basis and the Internal Secretions in Growth Types and Body Form."

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New York University University and Bellevue Hospital Medical College

New appointments and changes in title: John Winston Fowlkes, professor of otorhinolaryngology; Douglas Symmers, professor of pathology and director of pathological laboratories; Frank W. CoTui, associate professor of experimental surgery; Julius A. Klosterman, associate professor of bacteriology; Maurice Brodie, assistant professor of bacteriology; Irving Graef, assistant professor of pathology and assistant director of pathological laboratories; Milton B. Rosenbluth, clinical professor of medicine; Robert P. Wallace and Lilian C. Warnshuis, assistant clinical professor of medicine.

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University of Virginia Department of Medicine

At the meeting of the University of Virginia Medical Society on February 19, Dr. W. H. Goodwin spoke on the subject of "Subcutaneous Injury of Intra-abdominal Organs by Blunt Force;" Dr. Alfred Chanutin spoke on Studies on Partially Nephrectomized Animals."

At the meeting held March 5, Dr. E. L. Corey spoke on the subject of "Physiology of the Mammalian Fetus;" Dr. E. P. Johnson spoke on "Etiology and Histogenesis of Leucosis in Fowls."

At the meeting held March 26, Dr. Dean Lewis, professor of surgery in Johns Hopkins University Medical School, spoke on the subject of "The Hypophysis; Relation of Clinical Syndromes to Cellular Changes. April 9, Dr. Alexander Randall, professor of urology in the University of Pennsylvania, spoke on "The Obstructive Uropathies;" April 16, Dr. A. R. Shands, Jr., professor of orthopedic surgery in Duke University, spoke on "Studies in Bone Formation, with Special Reference to the Use of Calcium Salts."

Following the annual initiation ceremony of the Alpha of Virginia Chapter of Alpha Omega Alpha, Dr. Edwards A. Park, professor of pediatrics, in Johns Hopkins University, gave an address on the subject of Clinical Manifestations of Vitamin C Deficiency.

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Western Reserve University School of Medicine

Acting President Winfred G. Leutner of Western Reserve University, Cleveland, has just announced that with the entering class in September the School of Nursing will become one of the graduate professional schools of the University. A student on admission must have completed a course leading to Bachelor's Degree in Arts, Science or Philosophy, in a college of approved standing. On completion of the course, graduates will receive the degree of Bachelor of Nursing.

The change is being made after study of the field of nursing, by the faculty who are convinced that the field is expanding and offers unusual opportunities to college women.

Miss Marion G. Howell, dean of the

School of Nursing, says that the new degree course can be completed in thirty-three months. Students of the School of Nursing work throughout the year, with only a month's vacation in summer. The School will accept a few "seniors in absentia" from college, whose college courses have been planned to prepare for graduate work in nursing, just as the School of Medicine accepts such students, according to Miss Howell.

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University of Louisville School of Medicine

April 2-5, all the schools of the University joined in the celebration of the 97th anniversary of the founding of the University. The decree founding the University was enacted by the City Council on April 3, 1837. In the fall of the same year the School of Medicine was opened. It was named the Louisville Medical Institute and is the oldest medical school west of the Allegheny mountains. The corporation was chartered as a university by an act of the state legislature in 1846. It is the oldest municipal university in the country.

Wednesday, April 4, was the day assigned to the medical school. On exhibition were old books from the original library opened in 1838; old diplomas bearing the signatures of the founders of the school; journals edited by early professors dating back to 1840, and many specimens furnished by the preclinical departments. Motion pictures illustrating medical phenomena were shown.

March 10, Dr. Leslie B. Arey, professor and head of the department of anatomy in Northwestern University School of Medicine, delivered the first annual Phi Beta Pi lecture. The subject was "Mechanism of Vision in the Retina."

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University of Georgia School of Medicine

The Council on Medical Education and Hospitals of the American Medical Association has withdrawn its approval of this school.

The Executive Council of the Association of American Medical Colleges at a meeting held in February voted to recommend to the Association at its annual meeting in October that the school be dropped from membership in the Association.

Dr. Wm. L. Moss, dean and professor of preventive medicine and public health, has resigned from both positions. Dr. G. Lombard Kelly, professor of anatomy, has been appointed vice dean.

It is reported that plans for the reorganization and rehabilitation of the school are in the making. Work has been begun on a two story addition to the University Hospital to house a contagious disease ward and an outpatient department for the medical school.

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Columbia University Faculty of Medicine

Requirements for the degree of Doctor of Medical Science in Graduate Medical Education: The university grants recognition for acceptable graduate work in the clinical specialties by means of the degree of Doctor of Medical Science. This degree is non-specific, i.e., it does not carry a designation of the special field of study to which the student has devoted himself. Only a broad definition of requirements is stated in order to permit flexibility in the training for the various clinical specialties and adaptation of that training to the needs and preparation of each student. The specific requirements for each of the specialties are formulated by the departments concerned.

Requirements for Admission: Applicants must present evidence of (1) Graduation from a medical school approved by Columbia University. (2) Completion of an internship of not less than one year after graduation in a hospital approved by Columbia University. Students will

be registered only upon the recommendation of the department in which the work is to be done.

Advanced Standing: Students who offer work pursued in other universities, laboratories or hospitals for part fulfillment of the requirements for the degree as hereinafter set forth should file a certified statement of such training with the Dean of the Faculty of Medicine.

Requirements for the Degree: (1) A period of study after the internship of not less than three years in the University or in hospitals and laboratories recognized by it, at least one calendar year of which must be spent in this University. (2) Such intensive graduate training in the basic medical sciences of anatomy, embryology, physiology, biological chemistry, pharmacology, pathology, bacteriology, and in other fields of science, and original work in graduate medical studies as shall be recommended by the departments concerned. (3) An active experience during the three year period of not less than eighteen months in the hospital, clinics, and diagnostic laboratories of the specialty elected. (4) Written, oral, and practical examinations and a dissertation may be prescribed in the specialty elected and in clinical, laboratory, and public health fields to which the specialty is related.

Application forms may be obtained from the Dean of the Faculty of Medicine, 630 West 168th Street, New York City. Registration must be made with the Assistant Registrar, 630 West 168th Street. A statement of the courses which the student is authorized to pursue must be presented before registration.

Fees: (a) University Fee, for all students for each winter or spring session, or for any part thereof, $10: $20; (b) Tuition Fee, (30 points at $10 per point), $300; (c) Fee for application for the degree, $20; total, $340.

A limited number of fellowships are available each year for students registered for the degree of Doctor of Medical Science.

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University of Mississippi School of Medicine

The state legislature has appropriated $75,000 to defray the cost of remodeling two floors of one of the wings of the University Hospital for the departments of physiology, pathology and bacteriology and to provide new equipment. The old medical building will be renovated. The department of anatomy will occupy the entire top floor. The department of pharmacology remains in its old location. The medical library occupies commodious quarters in the university library building. A trained librarian is in charge.

It is reported that the entrance requirements will be raised from two to three years of college work and that the courses in physical diagnosis and clinical microscopy will be made adequate to meet the requirements of the four year schools.

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Wayne University College of Medicine

The name of the Detroit College of Medicine and Surgery has been changed to Wayne University College of Medicine as a result of the merger of the various colleges hitherto conducted by the Board of Education of the City of Detroit—College of the City of Detroit, Detroit Teachers College, Detroit College of Medicine and Surgery, Detroit College of Pharmacy, the School of Engineering and the Graduate School.

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University of Toronto Faculty of Medicine

The eighth annual Donald C. Balfour Lectureship in Surgery was delivered April 5th by Dr. William D. Haggard, professor of clinical surgery, Vanderbilt University School of Medicine. His subject was "The Seeds of Time."

Incidentally April 5 was the 107th anniversary of the birth of Lord Lister.

Duke University School of Medicine

February 21, Dr. John H. Hamilton, Director of the State Laboratory of Hygiene, Raleigh, N. C., lectured on County Health Work.

March 3, Dr. Vonnie N. Hicks held an operative clinic at the North Carolina State School for the Blind, at Raleigh, for the junior and senior students.

March 6, Dr. M. V. Ziegler, Director of the Division of County Health Work delivered a lecture on Public Health Work.

The Durham-Orange County Medical Society held its regular monthly meeting at Duke Hospital March 9. Dr. Oscar L. Miller, of Charlotte, N. C., presented a paper on "Fractures of Both Bones of the Forearm," and Dr. L. Emmett Holt, Jr., of Baltimore, Md., a paper on "Observations on the Absorption and Utilization of Fat."

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University of Chicago Division of the Biological Sciences

The Division of Natural Sciences of the Rockefeller Foundation has made a special grant for research on the application of spectroscopic methods to biological problems. This grant will provide $11,750 for the period from March 1, 1934 to June 30, 1935.

Dr. Kenneth Grant, assistant resident in obstetrics and gynecology, is at Vanderbilt University in Nashville on an exchange residency. Dr. Harold Klingler from Vanderbilt is serving here as exchange resident. This is an arrangement made each year for one month.

Dr. Whelan D. Sutliff has replaced Dr. Graeser as Douglas Smith Fellow in medicine working with Dr. Robertson on problems of pneumonia.

Dr. Bengt Hamilton of the Pediatrics Department led a round table discussion on "The Pediatrician Looks at the Family." The psychiatrist's point of view was discussed under Dr. Douglas Campbell's leadership.

The Quaker Oats Company has increased its original gift of $4,500 made to the Departments of Surgery and Home Economics, by an additional $1,000 in order to allow the study being made in the orthopedic hospital to be continued for more definite results.

Dr. Heinrich Kobrak of Berlin, Germany, has taken up work in otolaryngology with Dr. Lindsay.

Dr. John Fahey has been appointed as assistant and assistant resident in surgery to replace Dr. Bowman, resigned.

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Johns Hopkins University School of Medicine

The seventh course of lectures under the William Sydney Thayer and Susan Read Thayer Lectureship in Clinical Medicine, was delivered March 8 and 9, in Hurd Memorial Hall, by Dr. James B. Murphy. The subject was the "Experimental Approach to the Cancer Problem." The first lecture dealt with "Four Important Phases of Cancer Research;" the second, "Avian Tumors in Relation to the General Problem of Malignancy."

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University of Kansas School of Medicine

The fourth course of lectures on the Porter Lectureship in Medicine was given by Dr. Richard E. Scammon, dean of the Division of Biological Sciences in the University of Minnesota, April 2 and 3. The titles of his lectures are (1) The Plague in Western Europe; (2) The Guild of Medicine; (3) How Measurement Came into Medicine.

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Long Island College of Medicine

Dr. Jean R. Oliver, professor of pathology, received a grant of $1,000 from the Josiah Macy, Jr., Foundation for continued studies on the pathology of Bright's Disease.

General News

Advisory Board for Medical Specialties

The present trend toward specialization in medicine with the lack of fixed minimum requirements for training and experience in special work has called attention repeatedly of late to the urgent need for official recognition and certification in the United States of fully qualified specialists in various branches of medicine.

Examining boards have been functioning for several years in ophthalmology, otolaryngology, obstetrics and gynecology, dermatology, and more recently in pediatrics. Boards are now being formed in radiology and orthopedic surgery as well as in several other special branches of medicine. Citizens of the United States and Canada are equally eligible for examination.

Each of these boards is composed of members appointed by the nationally recognized special societies, and the related sections of the American Medical Association.

Their requirements and examinations for certification are rigid and searching.

Announcement is made of the formation of the Advisory Board for Medical Specialties. The purpose of this Advisory Board is to coordinate the activities of the various official groups already concerned with postgraduate medical education in the specialties, and to standardize their methods of work and the certification of medical specialists by the existing boards.

It is composed of representatives from the following groups: Association of American Medical Colleges; American Hospital Association; Federation of State Medical Boards of the United States; National Board of Medical Examiners; American Board of Ophthalmology; American Board of Otolaryngology; American Board of Obstetrics and Gynecology; American Board of Dermatology and Syphilology, and American Board of Pediatrics. Examining boards in other specialties may be eligible for representation on this Board on meeting certain high standards of qualification.

The officers are: President, Dr. Louis B. Wilson, Rochester, Minn.; vice-president, Dr. J. S. Rodman, Philadelphia; secretary and treasurer, Paul Titus, Pittsburgh; Members of the Executive Committee, Dr. W. P. Wherry, Omaha, and Dr. W. B. Lancaster, Boston.

It is obvious that this Advisory Board for Medical Specialties should have an important influence in an advisory way on undergraduate medical education as well as graduate education in the specialties; it will assist in the active investigation and listing of post-graduate training facilities both in the United States and Canada, and to a lesser extent abroad; and it should be an important influence in effecting a general improvement in the standards of practice in the various specialties. It has been seriously suggested that the time may soon come when the various states will license physicians to practice as specialists and that American Boards' certificates will be on the basis of such a license. One province in Canada already licenses all of its specialists.

It is expected and planned that this Advisory Board for Medical Specialists will be reportable to and work under the general direction of the Council on Medical Education and Hospitals of the American Medical Association, the latter to be affiliated in a judicial capacity. The details of this affiliation have not yet been completed.

The next edition of the American Medical Directory plans to publish information about the acceptable special boards as well as to indicate those physicians who are diplomates of the boards. Plans are likewise being formulated for the proposed publication of a directory of diplomates which shall also contain information regarding postgraduate training facilities, special residencies available, and general qualifications necessary for certification and such official recognition as a specialist in any given branch of medicine.

The next meeting of the Advisory Board will be held in Cleveland, June 10, 1934, immediately prior to the next annual session of the American Medical Association.

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Federation of State Medical Boards

At the annual meeting held recently the following officers were elected for the ensuing year:

President, Dr. Henry M. Fitzhugh, Baltimore; president-elect, Dr. I. D. Metzger, Pittsburgh; vice-president, Dr. Roy B. Harrison, New Orleans; secretary-treasurer, Dr. Walter L. Bierring, Des Moines, Iowa.

The following resolution was adopted:

WHEREAS, It has been brought to the attention of the Federation of State Medical Boards of the United States that an unknown number of American students are studying medicine in foreign medical schools where adequate information concerning standards of medical education is not available, therefore, be it

RESOLVED, That the Federation of State Medical Boards of the United States recommend to its constituent state boards, and to the National Board of Medical Examiners, that, until adequate information is available, these boards deny graduates of foreign medical schools admission to the various medical licensure examinations, and be it further

RESOLVED, That a copy of these resolutions be transmitted to the Council on Medical Education and Hospitals of the American Medical Association and to the Association of American Medical Colleges, with the request that full and adequate publicity be given to this resolution.

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Commonwealth Fund Report for 1932-1933

The annual report for 1933 describes the expenditure of $1,662,714 for the public welfare.

The state health departments of Mississippi, Tennessee, and Massachusetts, in the face of severe reductions in budget, have continued to support a joint program of rural health betterment. Eight counties in New Mexico, with less than five persons to the square mile, have each agreed to pay the salary of a public health nurse employed hitherto by the Fund and the state. Kingsport, Tennessee, has subscribed its share of the cost of a new general hospital. Rural hospitals previously built with aid from the Fund, in six states, have maintained service without interruption.

Among the publications of the year are "Maternal Mortality in New York City," reporting the findings of a study made under the auspices of the New York Academy of Medicine, with financial aid from the Fund, and "A Standard Classified Nomenclature of Disease," prepared by a conference representing the principal national medical associations and already adopted by many hospitals as a basis for uniform recording and reporting.

To achieve a specified purpose—better handling of children, better public health, better care of the sick, or the like—the Fund has offered technical counsel and temporary subsidy to a community or agency which in turn was expected to do all it could for itself and ultimately to assume responsibility for maintaining the new service or standard of work.

In 1925 the Commonwealth Fund began to encourage the building of one or two small general hospitals each year in rural communities which lacked adequate facilities for care of the sick, supplying about two-thirds of the cost of each plant. In 1929, when six had been built, further operations were postponed. The construction program has now been resumed by agreement with the city of Kingsport, Tennessee, where work will soon begin on the Holston Valley Community Hospital. This will serve about 60,000 people in Sullivan County, Tennessee, and adjacent counties in both Tennessee and Virginia. The buliding, accommodating 50 patients, will stand on a site set apart for the purpose when the town was laid out by John Nolen. Under a plan now being studied, wage-earners may be able to make regular annual payments entitling them to hospital care when they need it.

The Fund is assisting the states of Mississippi, Tennessee, and Massachusetts to improve rural public health departments and medical service generally. Two rural districts in each state have been selected as demonstration centers, a traveling unit in each state advises local health officers, and in Mississippi a special unit to trace the source of epidemic diseases has been set up. Two hundred and twelve physicians from these states or from rural hospitals, in the past seven years, have been sent to medical schools for postgraduate study. Fifty-one undergraduates are now receiving scholarships to enable them to prepare for the practice of medicine in small towns.

The Fund helped last year to support research in rheumatic fever, dental caries, trachoma, serum therapy in pneumonia, multiple sclerosis, kidney structure and function, and the normal development of children. It aided in the development of clinical teaching facilities at Tulane University School of Medicine and in extension teaching of obstetrics in rural Virginia.

Fifty-six graduate students from British universities are in the United States this year as holders of Commonwealth Fund Fellowships.

Attention is called in the report to the action of the American Psychiatric Association in establishing a certifying board to examine physicians who wish to specialize in psychiatry and grant a diploma to those who are properly qualified, and also to the two-year study of psychiatric education made by a division of the National Committee for Mental Hygiene.

The Fund also continued to give scholarships for training in psychiatric social work at the New York School for Social Work, the Smith College School for Social Work, the School of Applied Social Sciences of Western Reserve University, and the School of Social Service Administration of the University of Chicago.

The report indicates that child guidance clinics generally have weathered difficulties due to budget reductions.

A child guidance clinic in London, supported chiefly by the Fund, has completed its fourth year and has received fresh recognition from the London County Council, which proposes to use it under the provisions of a new law for the examination of children held in custody to await court action.

Abstracts of Current Literature

German Education Today

The main aims and functions of the German university system have undergone a radical change. No longer is the main duty of the university the scholarly unprejudiced "Wissenschaftliche Ausbildung" of the German youth. To produce politically—that is, national socialistically-minded young men and women, who think and work for the good of the German "Volk," that is the function of the newly organized university. In view of this aim, the education of a student for his life's work assumes a new light, in that, in his chosen profession, the student realizes that his most important political duty is to his country.

In its effort to educate the young people to this ideal, the national socialistic party has set up for the university students a rather strenuous program, which, when faithfully followed, takes a great deal of time from academic studies and leaves little or no time at all for the customary German "Studentenleben." Every student has a so-called "Pflichtenheft," in which are written those duties which he, in his field, as a student in national socialistic Germany, must perform before he may present himself for the academic examinations. For example, he must attend certain "Pflichtvorlesungen," political courses, must take part in certain "Arbeitgemeinschaften" or discussion groups, where some socially and politically important subject is treated at each meeting. He must attend an "Arbeitsdienst Lager" from six to eight weeks, where he is supposed to learn to live, not only with fellow students, but with members of all professions, a well organized and harmonious life. Great stress is placed upon discipline and the building of strong bodies. For this same purpose of learning discipline and the cultivation of a "Zusammengehörigkeitsgefühl," more and more Kameradschafts-Häuser are being founded, where a student must live one or more semesters along with fellow students. Many of the former corporation houses are being turned over to this purpose. In addition, there are certain political organizations to which the majority of students belong —the men students to the "National Sozialistischer Studenten-Bund"—the women students to the "Arbeitsgemeinschaft Nationalsozialistischer Studentinnen"—and three or four times a week the men students must expect to offer their time and services to the S. A.

And so we realize that the old well known German academic freedom is a thing of the past. To come and go, work and "bummel" at pleasure, to feel and act superior, as one of the "Gebildeten," to the "ungebildeten" average man, no longer typifies the life of the average German student.—*News Bull. Inst. Intern. Ed.*, April, 1934.

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Survey of Medical Education

The American medical school and its associated hospitals have now reached the stage where a new national survey is required. Every institution should be again studied. A higher level has been reached. There is as great a gap between the best A schools and the weakest A schools as there was between the best and the worst of thirty years ago. This survey must include the following considerations: 1. A better development of graduate instruction so that all physicians may have available opportunity of keeping themselves up to date. 2. We must rid ourselves of the antique, the obsolete, and the unimportant in our medical courses. The curriculum must be

stripped of all that is not essential. Our aim must be to train men how to practice medicine rather than to load them with great masses of information. 3. The newer social concepts for the care of the sick, and particularly the significance of preventive medicine, must be emphasized in the medical school. 4. There must be more adequate study of the normal with its many variations. 5. The teaching of obstetrics must go far beyond the ordinary technics and include the care of the mother for months before delivery. 6. The relationships of dentistry and of the nursing profession to medical education must be worked out. 7. Perhaps most significant of all is the need for dealing with psychology and aberrations of the mind from entirely new points of view. 8. Most careful study will be required of the relationships of the hospital to the medical school. The doctor of tomorrow will know the physiology of the normal human body, will be alert to changes that may take place, and will think in terms of keeping men well and efficient, rather than in terms of treating a patient during the progress of disease. RAY LYMAN WILBUR: *J.A.M.A.*, March 31, 1934.

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Trends in Medical Education

There is imperative need for the reversal of the recent trends that have been separating the doctor from the individual and the family and have been bringing on medicine the criticism of treating diseases rather than human beings. Concentration on pathologic conditions has tended too much to obscure the normal human being and the preservation of the normal state of health. A general practitioner should be competent to take the complete responsibility for perhaps 90 per cent of all his practice. The University of California is placing special emphasis on the instruction of medical students in the normal physiology and biochemistry of the body. Our students are being taught to recognize health before sickness and to realize the interrelationship of the body's organs, especially those delicate balances of the life processes that exist between the nervous and the mental, in one scale, and the physical, in the other. Only when they have become well acquainted with health are students introduced to those deviations from the normal which produce sickness. To facilitate this manner of approach, fourth and fifth year students are obliged to assume entire responsibility for patients. Instead of looking on while their instructors make decisions, they are required to make the decisions themselves. Students are discouraged from too early specialization: they are encouraged instead to learn to use specialists in connection with a general practice. In the coming era, doctors must face social responsibility for the community and act as trustees for society in planning their objectives. Thus will medicine be strengthened and extended and implemented to serve a larger constituency on a basis that will yield adequate returns to its practioners.—ROBERT G. SPROUL, *J. A. M. A.*, March 31, 1934.

The Reform of Medical Education*

DR. J. TANDLER
Professor at the Medical Faculty of Vienna University and Chief of the Social Welfare Department
VIENNA, AUSTRIA

Complaints regarding the inadequacy of medical education and proposals for reform in this sphere were already heard before the war and have since become much more clamant.

In every civilized country, attempts have been made, by means of resolutions and investigations carried out by professors or the authorities, or even by the students themselves, to formulate principles the application of which was calculated in the opinion of their supporters to remedy the various defects, whether recognized or not.

The general opinion has always been that university instruction called most urgently for reform, and that changes in the medical curriculum would bring relief. Thus, new regulations for studies and examinations have been issued from time to time, after long and wearisome discussion, but no appreciable progress has been achieved.

There can be no doubt that the present position as regards the training of medical practitioners has its share of responsibility in explaining the low material, moral and social level to which the profession has fallen, but it would be unfair to attribute the whole blame to their training.

The medical profession cannot be dissociated from its social and political environment, nor can doctors be isolated from other workers.

The reform of medical education cannot therefore be regarded from the strictly limited standpoint of university teaching; the whole question must first be analyzed before we can decide what is to be done in the narrower field of medical education.

We must first of all be quite clear on one point—no single formula applicable to all countries can be found. Each nation lives its own life, has its own art, its own culture and, like the individuals, makes its contribution to that common stock, and is in some sort influenced by it. We must none the less endeavor to set out principles of general application.

A first category of questions concerns the doctor's conditions of life and means of livelihood under present economic conditions, the second concerns his professional education in relation to the university in general and the medical faculty in particular, and the third his training for university teaching.

In modern economic conditions, a doctor is a member of a liberal profession in appearance, and in appearance only. He deals in the health of those who entrust their health to his care, this anomalous position being mainly due to economic causes.

The doctor is interested in the health of his patients and does, in fact, spend himself in their interests; but it is not by health that he lives but—just the contrary—by sickness. The number of his visits and prescriptions is not determined exclusively by the condition of the patient, but sometimes also by his own pecuniary

*Reprinted from the *Quart. Bull. of the Health Organizations of League of Nations*, September, 1933.

interests. This struggle of conscience which he has to face day in and day out does not strengthen the moral consciousness, but tends rather to sap it. Consciously or unconsciously, a doctor comes to regard himself as nothing more or less than a wage earner, and is no longer satisfied with the sure but modest income of those who administer the common property of mankind, though really a trustee of human health. He refuses to be placed on the same footing as the priest, the judge or the teacher.

This attitude of mind explains many of the criticisms directed against the medical profession. There is such a thing as the right to health, just as there is the duty to be healthy, both for the individual and for society. The right of the community to require health in the individual is legally acknowledged wherever there are laws dealing with epidemics, as it is the primordial right of the community to guard against infection through individuals, and the segregation of lepers thousands of years ago was simply an expression of that right. Human society, which requires the individual to be healthy, also gives him the right to demand that his health be protected by it. Had this argument—based on the normal relationship between the individual and society—ever been followed to its logical conclusion and acted upon, the medical question would have been solved long ago.

It would never occur to any one to think that a judge should in each particular case exact payment from an individual appealing to the courts. Justice, as a common good, is guaranteed by the independence of the judge, who is paid by society for his work and need not therefore take into consideration the pecuniary circumstances of the plaintiff. Elementary education is an uncontested right in all civilized communities, and no teacher at a government school is paid for his work by his pupils. Priests, who are appointed by a religious body or by the state—that is to say, ultimately by society—are not paid by individuals, but act as the mandatories of society.

Similarly, a doctor should be the mandatory of society and be paid by it, so that he may administer health, as a judge administers the law. Deliberate compromise for economic reasons, on the pretext of belonging to a liberal profession, is what has given the medical profession its commercial character, and this conflict of interests it is that has led to the present material and moral plight of the medical profession.

Nevertheless, there are attempts at improvement here and there. The health offices set up for the use of the community are a beginning. The doctors employed in them no longer treat private patients, but serve the community. In progressive countries and cities, where the value of these health offices is realized to the full, the doctors attached to them are forbidden to engage in private practice and are paid like judges or teachers. The extension of medicine beyond the bounds of therapy to prophylaxis and preventive care has led to the creation of a new category of doctors—social welfare doctors. They, too, have been obliged to give up their private practice and receive a fixed salary for their work—at least, in those countries in which the importance of this category of doctors is duly appreciated. Here, it is no longer a question of the observance and application of health regulations; men and women need not be ill before they can benefit from the doctor's care.

A further step has been taken in appointing health insurance doctors. We do not, of course, intend to go into the whole problem of health insurance here, but

there is one point to which reference must be made. Health insurance doctors no longer receive private fees, but treat the patients allocated to them within a certain area for a fixed salary. The weakness of the system may be attributed here, again, to the fact that it is in the nature of a compromise, since, at present, most of these doctors still have private practices, though there are notable exceptions. When the health insurance offices decide to reserve the services of their doctors exclusively for their members and forbid them to have private practices, this important category of doctors will cease to be business men and will assume the more dignified position of administrators independent of private fees.

A great many arguments have, of course, been advanced against such a system, especially by the doctors themselves. They consider that they have suffered injury, since their whole education has inculcated in them the idea that their profession is a means of making money. Much is said about bureaucratization, with all its attendant evils. Teachers, judges and ministers of religion are not necessarily bureaucratized, for bureaucratization, in the sense in which we understand the word, is not the effect of a system, but an expression of individual personality. There are bureaucrats in the liberal professions, just as there are independent men in official positions.

All medical intervention is individual action, but it should not be the subject of personal remuneration. Doctors must learn to look beyond private fees and aspire to the higher ideal of retribution for service to the community. They will have to adapt themselves to the rights of society and be more punctilious in carrying out their duties toward it. This is the social foundation on which the medical edifice of the future will have to be constructed. True, for this, doctors will need a training radically different from that which they mostly receive today, and this brings us to the question of the university education of doctors.

Universities presuppose secondary schools, where the pupils are prepared, so that much of the university question is really a question of secondary education. We do not intend here to go into the controversy of the last few years on secondary schools. One may be in favor of the classical or of the modern side in education, but one thing is certain—secondary schools are not merely intended to raise the educational level of our young people, but are, and must remain, a preparation for the university. As a medical professor of thirty-five years' standing, through whose hands many students coming from secondary schools have passed, I may be allowed to express a frank opinion. Instruction in the secondary schools (I can, of course, only speak for the old Austria and the Republic of Austria) has, during the last decade, become easier, but not better. Its selective value has greatly diminished. Adaptation to the times in which we live—so essential for every one, and especially for the man of science (and every doctor must be that to some extent)—is often inadequate, if not entirely absent. Our secondary schools—especially those of a classical tendency—are still too deeply imbued with ideals borrowed from the Greek and Latin cultures; contemplation of the past deprives our young people of a just appreciation of the present. The desire of so many university professors to select their own students—to inaugurate a sort of entrance examination—is perfectly comprehensible, though I personally doubt if the increase in the number of examinations, however necessary, will lead to really satisfactory results. University reform therefore implies secondary school reform which, for various reasons, must no longer be delayed.

The reform of medical teaching and medical training generally depends on

the attitude adopted toward the universities and their faculties. We need not discuss here the out-of-date system so often found in our universities, nor need we consider whether they can continue to exist in their present form. The question is rather: What are the faculties actually doing to train students for their future careers?

Two alternatives have long been in conflict with one another. A faculty is either a professional school, or it is part of the university, and, as such, must fulfill the requirements of a university. A professional school is there to impart the existing store of knowledge in the most adequate fashion and in the shortest possible time to those whose future profession requires special technical knowledge. The scientific horizon must not, of course, be too restricted, but pure research is not necessarily an integral part of the curriculum of the school. The position is quite different in the university, though the latter has long ceased to be a *universitas literarum*.

Research work is a vital necessity in any university. The university professor must be essentially a research worker, possessed of a critical sense resulting from the perfect mastery of the subject born of his own researches, and a pedagog capable of imparting his learning to others. On the foundation of knowledge already acquired must be constructed the spiritual edifice of research work. This essential duality of function explains the inadequacy in one direction or another and, to a large extent, the conflict which every university professor and, indeed, every university has to face. Professional schools alone are not enough; nor are the faculties as we know them today. The defects of faculty instruction cannot be remedied by an increase in the number of subjects or examinations, but only by a change of system. This change must apply both to the subject matter and to the form in which the instruction is given. Both these points have often been discussed.

As regards the form, some are partisans of the old form of academic instruction given in a lecture hall by a professor, as constituting the only adequate method of instruction, while others maintain that the substitution for oral instruction of seminars and laboratory and hospital work will solve the problem of medical education. Many illustrations and arguments can be produced in support of either view.

In this connection, too much importance is perhaps attached to method and too little to the personality of the teacher; here, as in other walks of life, it is personality that chiefly counts. The academic professor is not a walking textbook and it is not his business to reproduce all his knowledge for the benefit of his students, but rather to stimulate the latter, by the style of his lectures and his method of propounding problems to think for themselves. The fact that not all academic professors are capable of doing this is the fault, not of the system, but of the choice of professor.

The masterly exposition which permits of the survey, as from a height, of the whole field of learning must not disappear. That is how the professor communicates the results of his own experience and inculcates in his pupils a taste for research. This kind of teaching must not be neglected in future if medical instruction is not to degenerate into medical "drill." For this reason, the entire replacement of other forms of instruction by seminar and practical work would certainly be an extreme and exaggerated measure. There is the danger of instruction degenerating into casuistical discussions, of the lack of a comprehensive or synthetic

view of the subject. Already, in many clinics, the systematic course of pathology has been abandoned; the students are given innumerable object lessons without being allowed to gain an insight into the diseases themselves or to become acquainted with the psychology of the sick, who, after all, cannot be ignored.

This does not mean to say that clinical teaching in the seminar or labatory and practical work are superfluous. Medicine must be, not learned, but lived by the students, and, for this, hospital and laboratory work are indispensable. The student must not only receive impressions through sight, hearing and touch, but must live in the atmosphere surrounding every sick-bed, must learn to sympathize with human suffering before he can hope to succor it, and no professor in the world will ever be able to teach all this.

What is wanted is a large staff of assistants who, under the influence of their master, have themselves become teachers, and for this they must have time, and must be forbidden to have a private practice. When instruction and business conflict, business always wins. There are faculties where the assistants have flourishing private practices of their own and, in consequence, devote too little time and attention to their essential duties—namely, instruction.

A much more difficult question is what should be taught, and this is, moreover, a question that cannot be solved by mere curriculum or regulations. What must be realized is that doctors cannot and should not know all that their professors regard as indispensable. We have to admit that professors are often tempted to over estimate the importance of their own particular subjects and teach them as if every student were to become a specialist in that branch. Here, also, the master is known by his capacity to confine himself to what is indispensable. Many professors will never be cured of their partiality toward their own subjects. Perhaps the best method would be to reduce to a minimum the hours of instruction in the several branches. Both professors and students would still be free to give or attend as many optional lectures as they desire. The rationalization of compulsory lectures must therefore be one of the first reforms.

It is, however, not only the amount of instruction in the various compulsory branches that must be limited, the number of subjects should also be restricted. Compulsory subjects there must be, and their limitation is rendered the more difficult by the present tendency to make as many subjects as possible compulsory. Medicine has been badly hit by the modern mania for specialization; specialized research work has made great progress and is, indeed, a condition of success. Specialization in instruction has, however, done harm to the medical profession. This tendency is still increasing, and the number of branches which, according to their professors, students ought to study seems never-ending.

It is time that medicine was regarded from the point of view of the requirements of patients and not from that of existing and future chairs. We must have the courage to jettison superfluous medical knowledge which seldom if ever proved useful in practice. I myself, as a professor of anatomy, am convinced that many chairs of anatomy suffer from an excess of anatomical instruction. Descriptions of the smallest apophyses of the skeleton and the enumeration and description of the smallest muscles of the back and the finest arterial branches may be very interesting, but what good is it to doctors? After every examination—and, unfortunately, these details still form the subject of examinations—all this is dropped and forgotten to make room for fresh knowledge in the shape of minute histological details.

In the preface of my textbook, I said advisedly that students learn too much and know too little, and what I have said—in the light of my experience—of anatomy, which can only be taught with a view to practical application, may be said of most subjects. Everything taught must be in the interests of science and research, without being allowed to degenerate into professional instruction or "drill." The solution lies, not in reducing the amount of theoretical instruction, as advocates of "practical" instruction would claim, but rather in a different kind of theoretical instruction.

True, there is no branch of medicine in which a doctor cannot, upon occasion, act as a saviour. The only question is whether the amount of energy expended is not disproportionate to its practical value. Any one who saves a fellow-being's eyesight has done something worth doing, and any oculist has the right to be proud of it. Every doctor should therefore be taught ophthalmology, but is it necessary that every doctor should be an oculist? Ophthalmology is a branch in itself and forms the subject of a special examination, but what does even the best doctor know of it after a few years, unless he has specialized? In my opinion, it is sufficient if a doctor is capable of diagnosing in time conjunctivitis, lesion or abscess of the cornea, trachoma and glaucoma, so as to be able to protect his patients from the worst consequences of these affections. I do not think that one medical practitioner in a thousand would ever undertake an operation for glaucoma, though thousands have probably learned all the details of this operation only to forget them afterward.

Quite as dangerous as many affections of the eye is otitis media. Students have to pass examinations in every detail of ophthalmology, but the same does not apply to diseases of the ear. These inconsistencies will be further multiplied in future. Each new method of medical diagnosis and treatment passes through the stages of research, doctrine, teaching and practice. First a lectureship is created, then an extraordinary chair, and finally an ordinary chair. So far, so good.

What we cannot approve is the consequent examination, in which the student is required to prove his knowledge of all these branches. For what is important is not the quantity of his knowledge, but the quality and the fact that he should select what is indispensable to any doctor, since no medical student can know everything, however many examinations he is required to pass. The psychotechnical institutes of the faculties of philosophy say that the human brain is only capable of absorbing new impressions for a very limted number of hours a day, whereas the medical faculty, by overtaxing the students' brains, assumes just the reverse of this attitude. The subject matter therefore, and the number of branches must be restricted.

Then, again, a student should not study medicine only, but should also have an opportunity during this period of his life of developing generally, of going in for sport and participating in the intellectual life of his time. The restriction of the intellectual horizon involved by concentrating on one particular branch of knowledge for years at a stretch is far more likely to make a doctor a bureaucrat than any of those rules and regulations to which doctors object on the ground that they lead to bureaucratization.

I would like to say a few words about examinations. The whole conception is wrong and is the direct outcome of the kind of instruction given. It is not likely that the professor will expatiate for years on the smallest details and then

magnanimously refrain from demanding a knowledge of them at the examination. There are far too many examinations and far too many subjects for examination. Here, again, some restriction is called for. The application of the various reforms which have here been outlined rather than described is a first necessary condition for any thorough going reorganization. The training of a doctor must consist of two stages. In the first, he should be taught all things needful for his profession, both theoretical and practical. In the second stage, however, he must learn to be a doctor, and that he can do only by working on his own, under the direction and supervision of those who have already become proficient, persevering until he has mastered his profession. In other professions, this idea is by no means new. In nearly every country, a future lawyer, after having finished his law studies, must practice for some years as a licentiate on probation, while a future judge must, after his studies, spend years in a court learning his duties. It is only in medicine that a student is considered to have terminated his studies and to be in a position to exercise his profession, directly he has passed the study period proper. He is left to decide for himself whether he is ready to embark on the treatment of patients. Such an attitude I would describe as sheer contempt for health, a gross lack of respect for our fellow-beings.

In some countries the enormity of this offense has been realized, and it has been decided to introduce a so-called practical year, as if one could, in one year, learn to practice an art which has required six years of preparation. It may well be that the fine reputation enjoyed by Austrian doctors is partly due to the fact that, after they have taken their doctor's degree, they are required, practically without exception, to serve for four years in hospitals as assistants and are already doctors of proved capacity before they go into practice.

However, not all men are equally conscientious; what one does, another will leave undone, and on this depends the life and health of innumerable people. A three to four years' hospital period should therefore be compulsory. No one should be able to obtain the *venia practicandi* unless he can prove that he has really employed these years in acquiring a training, and this would mark the inception of quite a new system of medical education. I am convinced that four to four and one-half years of theoretical and practical training on the lines I suggest would be sufficient. After the examinations, there would be at least a three-year course of practical training in the hospitals, and it would only be at the end of this period that a doctor would be authorized to practice.

I will not go into details. The essential thing is to distinguish, in the education of the future doctor, between theoretical instruction in medicine and training with a view to his future profession. There must be no compromise here, and it is that tendency to compromise, so characteristic of our time, that renders such a reform difficult, not to say improbable.

All the reforms suggested up to the present will, however, prove inadequate, unless—without prejudice to the therapeutic claims of the individual—the need is realized of familiarizing the doctor with the social structure of the society in which he lives, and unless he is acquainted with the legal bases of social policy as a whole and has learned to adapt himself to them. A doctor who has been taught and trained on these lines, no longer haunted by the thought of his daily fees, will cease to be a mere wage earner, and, as a trustee of human health, instead of following a trade, will take his place in a profession capable of bringing him satisfaction and enhancing his self respect.

Book News

Human Embryology and Morphology

By Sir Arthur Keith, M. D., 5th Ed., William Wood and Company, Baltimore. 1933. Price, $10.

This well known and authoritative work, written for the undergraduate medical student, has been completely revised. Its merits are well deserved. The many references to the work of others in this field are sufficient warrant for the claim that it is exhaustive. A notable change from previous editions is the collection of references at the end of each chapter.

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Treatment in General Practice

By Harry Beckman, M. D., Professor of Pharmacology in Marquette University School of Medicine. 2d Ed. W. B. Saunders Company, Philadelphia, 1934. Price, $10.

A praiseworthy effort to revive the teaching of therapeutics in medical schools where it has fallen into almost "innocuous desuetude" for several decades. The arrangement is alphabetical. The material presented has been culled carefully from the experience of physicians all over the world, therefore, may be regarded as a compilation of accepted therapy. The book should prove a boon to the medical student who learns much about diagnosing diseases but little about how to give the victim relief or to effect a cure.

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Handbook of Psychiatry

By John H. Ewen, M.R.C.P. (Edin.) D.P.M., Assistant Medical Officer, Surrey County Mental Hospital. William Wood and Company, Baltimore. 1934. Price, $3.75.

A synopsis presenting the main features of mental disorders in an orderly and methodical manner, thus providing a means of rapid revision. It should prove most helpful for reference and as an aid to memorizing a multiplicity of detail.

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Students' Aids Series

William Wood and Company, Baltimore, 1934.

Qualitative Inorganic Chemistry. By R. G. Austin and R. H. A. Plummer of St. Thomas Hospital Medical School. Price, $1.50.

Neurology. By E. A. Blake Pritchard, of University College Hospital. Price, $2.

Pocket Anatomy. By C. H. Fagge. Price, $2.

Pathological Technique. By David H. Holer. Price, $1.50.

Pocket size; highly condensed; excellent aids to memory; for obtaining a speedy review of the subject in preparation for examinations.

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Allergy in General Practice

By Samuel M. Feinberg, M. D., Assistant Professor of Medicine in Northwestern University Medical School. Lea & Febiger, Philadelphia, 1934. Price, $4.50.

This volume discusses asthma from the standpoint of symptoms, pathology, etiology, diagnosis and treatment. It covers the practical aspects of the hay fever problem with its definite instructions concerning the management of these cases. It treats all other allergic diseases without repetitions. It presents case problems to show the methods of application of allergy in practice. Its discussions are non-technical and non-speculative. It presents for the first time data on plants and pollens in such a way that the phy-

sician in any part of the country can identify the problem of his own locality. This book brings the patient to the reader. Case histories include the physical findings, the allergic tests, their interpretation, the discussions of the steps in treatment, the successes and failures, and the progress of the cases over periods of weeks, months, and even years. A bibliography points the way for supplementary reading.

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Fundamentals of Biochemistry in Relation to Human Physiology

By T. R. Parsons, Assistant Professor of Medical Research in McGill University, 4th Ed. William Wood and Company, Baltimore, 1933. Price, $3.

An elementary introduction to the subject for the undergraduate student, with well selected bibliography appended to each chapter.

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Study of Anatomy

By S. E. Whitnall, M. D., Professor of Anatomy in McGill University. 2d Ed. William Wood and Company, Baltimore, 1933. Price, $1.50.

This book cannot fail to inspire medical students, especially first year students, with more enthusiasm for and interest in the study of anatomy, by indicating the value the aims and objects of such study and showing how anatomy is connected with medicine and surgery.

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Textbook of Abnormal Psychology

By R. M. Dorcus, Associate in Psychology, Johns Hopkins University, and G. Wilson Shaffer, Professor of Psychology, University of Baltimore. Williams & Wilkins Company, Baltimore, 1934. Price, $4.

This book is primarily designed to be used in class-room work by students who are acquiring their first knowledge of this branch of psychology. The book has been carefully planned and written with conciseness and clarity by experienced teachers. All who are interested in the subject will find it refreshing reading.

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Neuroanatomy

A guide for the study of the form and internal structure of the brain and spinal cord. By J. H. Globus, M. D., Associate Professor of Neuropathology and Neuroanatomy, New York University and Bellevue Hospital Medical College. 6th Ed. William Wood and Company, Baltimore, 1934. Price, $3.50.

Presenting an excellent series of fifty-three unfinished drawings, outlines, diagrams and incompletely labelled photomicrographs for the student to finish. Work which can be done independently in the class-room or at home. The drawings are prepared from carefully dissected anatomic specimens and bring into view the more important gross structures of the central nervous system. The task of completing and labelling these structures correctly requires careful observation on the part of the student and provides him with a lasting record of important facts observed in the course. Carefully detailed instructions are given. The plates are printed on special ledger paper, and perforated for removal if desired.

Besides general revision this edition differs from the previous one in containing a method of dissection and a description of the parts of the brain successively exposed thereby. The directions for dissection differ from those given in the guides generally available and are much more economical of material.

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The Practice of Surgery

By Russell Howard, Lecturer on Surgery and Teacher of Operative Surgery, London Hospital Medical College, and Alan Perry, Surgical Tutor London Hospital Medical College. 4th Ed. William Wood & Company, Baltimore, 1933. Price, $10.

The central idea of maintaining the work as a textbook for students has been preserved. Methods of treatment of controversial value and highly specialized operative procedures and laboratory tests have been omitted, or very briefly indicated. Individual subjects are treated clearly and concisely; discussions of diagnosis and treatment are highly commendable.

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Textbook of Pathology

By Robert Muir, Professor of Pathology University of Glasgow. 3d Ed. William Wood and Company, Baltimore, 1933. Price, $10.

Book and author well known in America. An excellent up-to-date complete textbook on general and special pathology for students and a reference work of high authority and reliability. Combines a lucid presentation of general principles with a wealth of detailed information.

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Queen Charlotte's Textbook of Obstetrics

By Members of the Staff of the Hospital, including Aleck W. Bourne, Trevor B. Davies and L. Carnac Rivett. 3d Ed. William Wood and Company, Baltimore, 1933. Price, $6.

This is a very complete and profusely illustrated exposition of obstetrics as taught and practiced at the oldest British maternity hospital, founded in 1739. Only a couple of pages are devoted to history. All of the rest is a lucid description of modern methods and principles as applied by the distinguished members of the present staff.

The subject is presented in a logical and well-ordered manner; the illustrations have good teaching value.

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The Biology of Bacteria

An Introduction to General Microbiology. By Arthur T. Henrici, M. D., Professor of Bacteriology University of Minnesota. D. C. Heath and Company, New York, 1934. Price, $3.60.

This book is intended for use by general or nontechnical students who will take but one course in microbiology; or in introductory courses for other students who will be taught particular applications of the science in advanced courses. The material is presented as microbiology, not as agriculture or hygiene, to stress the pure science aspects rather than the applications. While dealing mainly with bacteria, a considerable part of the work has to do with protozoa, fungi and other forms of microbic life. A brief history of bacteriology is given and the use of the microscope and the technic of microscopy are discussed. While not specially adapted for use by a medical student, the book is most interesting for him if he can find the time to read it.

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The Treatment of the Commoner Diseases Met with by the General Practitioner

By Lewellys F. Barker, M. D., Professor Emeritus Johns Hopkins University. J. B. Lippincott Company, Philadelphia, 1934. Price, $3.00.

This volume deals with the management of some of the internal disorders that are not infrequently met with by the general practitioner. It is in reality a review of medical literature, written by an expert, and presents to the reader concisely and clearly much information, thoroughly culled and condensed. It presents brief synopses of achievements in the field of general medicine and stresses treatment, which is too often presented rather briefly in many textbooks. Medical students will find the book useful and easy to read.

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Bright's Disease

By J. Norman Cruickshank, M. D., Senior Assistant to the Muirhead Professor of Medicine, University of Glasgow.

William Wood and Company, Baltimore, 1933. Price, $3.75.

Outlines recent work but avoids elaborate descriptions of biochemical and experimental work. There is an excellent chapter on treatment, with diet tables.

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Synopsis of Obstetrics and Gynecology

By Aleck W. Bourne, Senior Obstetric Surgeon Queen Charlotte Hospital. 5th Ed. William Wood and Company, Baltimore, 1933. Price, $5.25.

This book should have value for the undergraduate student. It is well arranged; packed with information; of convenient size and contains numerous diagrams. Part I deals with obstetrics; part II with gynecology.

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Hypertension and Nephritis

By Arthur M. Fishberg, M. D., Mount Sinai Hospital, New York, Staff. 3d Ed. Lea & Febiger, Philadelphia, 1934. Price, $6.50.

A book mostly for the practitioner. An excellent presentation of the subject in a most commendable manner. The advanced medical student will find it a good book to read on his clinical clerkship. An outstanding contribution to the subject.

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Modern Clinical Psychiatry

By Arthur P. Noyes, M. D., Superintendent State Hospital for Mental Diseases, Howard, Rhode Island. W. B. Saunders Company, Philadelphia, 1934. Price, $4.50.

This book is the outcome of lectures delivered to senior medical students who spend their vacation periods under the tutelage of the author. It is written in a most interesting style; packed with information gleaned from a large personal experience, with good bibliography appended to each chapter. The book is an innovation in this field. It is not in the least didactic, reading more like a nove than a textbook. It brings the studen close to the patient and his problems i every day life as influenced by both hi mental attitude and his surroundings.

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A Diabetic Manual

By Elliott P. Joslin, M. D., Clinica Professor of Medicine Harvard Medica School. 5th Ed. Lea & Febiger, Phila delphia. 1934. Price, $2.

This book enables the diabetic patien to cooperate intelligently with his physician. It instructs him how to carry ou the home treatment. It answers all o the essential questions at the outset con cerning food values, diet calculation danger signs, and the use of insulin, thu saving time and avoiding misunderstand ings. This edition covers every advanc in the treatment of the disease. It clar fies the doctor's instructions and simpli fies diet calculation and other elements of the treatment which the patient can do for himself.

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External Diseases of the Eye

By Donald T. Atkinson, M. D. Lea & Febiger, Philadelphia. 1934. Price, $7.50

This book is written for the general practitioner. It confines itself to external diseases of those ophthalmic conditions of the anterior segment of the eye most frequently encountered and which can be diagnosed satisfactorily without expensive instruments. The therapeutic procedures are presented clearly and concisely. There is an abundance of detailed material regarding minor subjects which will be of real service in the management of special cases.

The book is abundantly illustrated and the engravings are quite as valuable as the text itself in clarifying the author's ideas. A unique feature is the inclusion of illustrations made from wax models representing the auhtor's labors in this direction over a period of many years.